

PO No	Supplier	Line Item No	Line Rel No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Container No	Status	Receive Date	Price/Unit	Aging Days	Past Due	Total	Supplier Name	
P0041482	ACI001-VC	1	1	Net 30	M1010S-125	1010-1025 Sheet .125 : AISI 1010-1025 OR ASTM A36/A366/A1008 OR CSA G40-21, 38W/44W/50W/60W/70W NO SCALE ON SHEET MINIMUM YIELD TENSILE STRENGTH= 28ksi MINIMUM ULTIMATE TENSILE STRENGTH= 42ksi COLD ROLLED receive sf					32	11/1/2018	32	S123398	Quarantine	10/31/2018	\$ 4.00 / sf		1		\$127.92	Acier Ouellette Inc.
		2																				
		4																				
		7																				
		8																				
		9																				
		10																				

PO No	Supplier No	Line Item No	Rel Terms	Purchased Item	Description	For Part Project No	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Container No	Status	Receive Date	Price/Unit	Aging Days	Past Due	Total	Supplier Name		
		14		M6061T6R1.000	Round Bar 1.00"" : T6/T6S1/T6S10/T6S11/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ- AA-2008 OR AMS 4160 OR ASTM B221 OR ASTM B221 receive ft			20		20		\$123404	Stock	10/31/2018	\$ 2.74 / ft		1	\$54.74	Acier Ouellette Inc.		
		15		M6061T6R1.125	6061 Round Bar 1.125 : MATERIAL: 6061- T6/T6S1/T6S10/T6S11/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ- AA-2008 OR AMS-QQ-A- 2008 OR AMS 4160 OR ASTM B221 OR ASTM B221 receive ft			25		25		\$123405	Stock	10/31/2018	\$ 4.64 / ft		1	\$116.10	Acier Ouellette Inc.		
		16		M6061T6R1.500	6061-T6 Round Bar 1.50 : MATERIAL: 6061- T6/T6S1/T6S10/T6S11/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ- AA-2008 OR AMS-QQ-A- 2008 OR AMS 4160 OR ASTM B221 OR ASTM B221 receive ft			15		15		\$123406	Stock	10/31/2018	\$ 6.35 / ft		1	\$95.27	Acier Ouellette Inc.		
		18		M6061T6B1.000X06.000	6061-T6 Bar 1.000 X 3.000 : MATERIAL: 6061- T6/T6S1/T6S10/T6S11/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ- A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-2008 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft					12			\$123407	Stock	10/31/2018	\$ 11.50 / ft		1	\$137.99	Acier Ouellette Inc.	
		20			6061-T6 Bar 1.00 X 6.00 : MATERIAL: 6061- T6/T6S1/T6S10/T6S11/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ- A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-2008 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft					36		36		\$123777	Stock	10/31/2018	\$ 28.19 / ft		1	\$1,014.91	Acier Ouellette Inc.

PO No	Supplier Item No	Line Rel Item No	Rel Terms	Purchased Item	Description	For Part Project No	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Container No	Status	Receive Date	Receive Price/Unit	Aging Days	Past Due	Total	Supplier Name
		23		M6061T6B0.625X0.625	6061T6 Bar 0.625 X 0.625 : MATERIAL: 6061-T6/T651/T651/T651/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft			12		12		S123408	Stock	10/31/2018	\$ 1.54 / ft	1		\$18.49	Aacier Ouellette Inc.
		24		M6061T6B2.500X2.500	6061T6 Bar 2.500 X 2.500 : MATERIAL: 6061-T6/T651/T651/T651/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft			6		6		S123409	Stock	10/31/2018	\$ 28.74 / ft	1		\$172.41	Aacier Ouellette Inc.
		25		M6061T6B1.500X2.000	6061-T6 Bar 1.50 X 2.00 : MATERIAL: 6061-T6/T651/T651/T651/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft			12		12		S123410	Stock	10/31/2018	\$ 13.97 / ft	1		\$167.63	Aacier Ouellette Inc.
		26		M6061T6B2.000X3.000	6061T6 Bar 2.000 X 3.000 : MATERIAL: 6061-T6/T651/T651/T651/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft					12		S123411	Stock	10/31/2018	\$ 23.71 / ft	1		\$284.46	Aacier Ouellette Inc.
		27		M6061T6A1.000W125	6061T6 Angle 1.00 X 1.00 X 1.00 : MATERIAL: 6061-T6/T651/T651/T651/T62 ALUMINUM ANGLE AS PER AMS-QQ-A-200/8 receive ft					20		S123412	Stock	10/31/2018	\$ 1.05 / ft	1		\$20.90	Aacier Ouellette Inc.
		30		MT-4140QTR4.000	AlSi 4140 Quenched & Tempered Steel Round Bar 4.000" Dia. - AISI 4140 QT Round Bar : MATERIAL: AISI 4130 QUENCHED & TEMPERED ROUND BAR AS PER ASTM A4140 QT OR ASTM A4142 QT					4		S123413	Stock	10/31/2018	\$ 95.17 / ft	1		\$380.68	Aacier Ouellette Inc.



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER PO041482

Supplier: ACI001-VC
Acier Ouellette Inc.
935 Boul. Du Havre
Valleyfield
QC
J6S 5L1 Canada
Phone: 800 667 4248
Fax: 450 377 5696

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

PO No: PO041482
PO Date: 10/26/18
Due Date: 11/1/18
Purchase Order Revision:
Revision Date:
Ship-To Contact: Lavoie, ChantalPhone: clavoie@dartaero.com
Via: Ground
Pymt Terms: Net 30
Freight Terms:
Special Comments: QUOTE NO. SOU0141363

E-MAILED
OCT 26 2018

Items

Line Item	Job	Part	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1		M1010S.125		1010-1025 Sheet .125 : AISI 1010-1025 OR ASTM A36/A366/A1008 OR CSA G40-21, 38W/44W/50W/60W/70W NO SCALE ON SHEET MINIMUM YIELD TENSILE STRENGTH= 28KSI MINIMUM ULIMATE TENSILE STRENGTH= 42KSI COLD ROLLED receive sf	Firmed	-	11/1/18	32 sf	0 sf	32 sf	\$3.9975/sf	\$127.92
2		MT-HRS-P-0.625		Hot Rolled Steel Plate 0.625" thk : MATERIAL: HOT ROLLED STEEL PLATE ASTM A36 OR ASTM A1011 OR 44W OR ASTM A1018	Firmed	-	11/1/18	16 sf	0 sf	16 sf	\$26.7625/sf	\$428.20
3		M1018B0.625X10.000		1010-1025 Steel Bar .625 X 10.000 : MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A569/A570 OR CSA G40-21 38W/44W/50W/60W/70W receive ft	Firmed	-	11/1/18	4 ft	0 ft	4 ft	\$80.00/ft	\$320.00
4		M1018R1.625		round bar 1.625 : MATERIAL: AISI 1018-1025 ROUND BAR M1010S20GA AS PER MIL-S-7097 OR ASTM A108	Firmed	-	11/1/18	12 ft	0 ft	12 ft	\$9.936666/ft	\$119.24



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Items

Line Item	Job	Part	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
5		M304B0.750X1.000		304 Bar 0.750 X 1.000" : MATERIAL: AISI 304/316 SS BAR OR AISI 304/316 SS PLATE AS PER ASTM A276 OR ASTM A240 NOTE: AISI 303 NOT ACCEPTABLE receive ft	Firmed	-	11/1/18	12 ft	0 ft	12 ft	\$12.136666/ft	\$145.64
6		M304B1.000X1.250		304 Bar 1.000 X 1.250" : MATERIAL: AISI 304/316 SS BAR OR AISI 304/316 SS PLATE AS PER ASTM A276 OR ASTM A240 NOTE: AISI 303 NOT ACCEPTABLE receive ft	Firmed	-	11/1/18	12 ft	0 ft	12 ft	\$20.227/ft	\$242.72
7		M304R0.313		304 SS Round bar .313 : MATERIAL: AISI 304/316 SS ROUND BAR AS PER ASTM A276 NOTE: AISI 303 NOT ACCEPTABLE receive ft	Firmed	-	11/1/18	12 ft	0 ft	12 ft	\$0.91/ft	\$10.92
8		M303R0.500		303 Round Bar 0.500" : MATERIAL: AISI 303 SS ROUND BAR AS PER ASTM A582 NOTE:304/316 NOT ACCEPTABLE receive ft	Firmed	-	11/1/18	36 ft	0 ft	36 ft	\$2.834/ft	\$102.02
9		M303R1.000		303 Round Bar 1.00 : MATERIAL: AISI 303 SS ROUND BAR AS PER ASTM A582 NOTE:304/316 NOT ACCEPTABLE receive ft	Firmed	-	11/1/18	24 ft	0 ft	24 ft	\$10.145/ft	\$243.48
10		M303R0.750		303 Round Bar 0.750 : MATERIAL: AISI 303 SS ROUND BAR AS PER ASTM A582 NOTE:304/316 NOT ACCEPTABLE receive ft	Firmed	-	11/1/18	24 ft	0 ft	24 ft	\$5.406/ft	\$129.74
11		M303B1.000X03.000		303 Bar 1" X 3" : MATERIAL: AISI 303 SS BAR AS PER ASTM A582 NOTE: AISI 304/316 NOT ACCEPTABLE receive ft	Firmed	-	11/1/18	12 ft	0 ft	12 ft	\$48.785/ft	\$585.42
12		M4130NT0.500W.083		4130 Round Tube .500 X .083W : MATERIAL: AISI 4130N STEEL TUBING AS PER MIL-T-6736 OR AMS 6371/6360/6361/6362 6373/6374 receive ft	Firmed	-	11/12/18	100 ft	0 ft	100 ft	\$14.50/ft	\$1,450.00



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**PURCHASE ORDER
PO041482**

Items

Line Item	Job	Part	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
13		M4130NR0.250		4130 Steel Round Bar .250" : MATERIAL: AISI 4130N ROUND BAR AS PER MIL-S-6758 OR AMS 6348/6370/6528 receive ft	Firmed	-	11/1/18	24 ft	0 ft	24 ft	\$15.85/ft	\$380.40
14		M6061T6R1.000		Round Bar 1.00" : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ-AA-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B221 OR ASTM B221 receive ft	Firmed	-	11/1/18	20 ft	0 ft	20 ft	\$2.737/ft	\$54.74
15		M6061T6R1.125		6061 Round Bar 1.125 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ-AA-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B221 OR ASTM B221 receive ft	Firmed	-	11/1/18	25 ft	0 ft	25 ft	\$4.644/ft	\$116.10
16		M6061T6R1.500		6061-T6 Round Bar 1.50 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ-AA-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B221 OR ASTM B221 receive ft	Firmed	-	11/1/18	15 ft	0 ft	15 ft	\$6.351/ft	\$95.27
17		M6061T6S0.875X2.250		6061-T6 SHEET 0.875" thk, 2.250" wide : MATERIAL: 6061-T6/T62/T651 ALUMINUM SHEET OR PLATE SPECIFICATION: QQ-A-250/11 OR AMS-QQ-A-250/11 OR AMS 4025 OR 4027 OR ASTM B209	Firmed	-	11/1/18	12 ft	0 ft	12 ft	\$19.583/ft	\$235.00



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18		M6061T6B1.000X3.000		6061T6 Bar 1.000 X 3.000 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft	Firmed -		11/1/18	12 ft	0 ft	12 ft	\$11.499166/ft	\$137.99
									12 ft			At 18/10/31
19		M6061T6S1.000X3.625		6061T6 SHEET1.000 X 3.625 : MATERIAL: 6061-T6/T62/T651 ALUMINUM SHEET OR PLATE SPECIFICATION: QQ-A-250/11 OR AMS-QQ-A-250/11 OR AMS 4025 OR 4027 OR ASTM B209	Firmed -		11/1/18	6 ft	0 ft	6 ft	\$39.166/ft	\$235.00
20		M6061T6B1.000X06.000		6061T6 Bar 1.00 X 6.00 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft	Firmed -		11/1/18	36 ft	0 ft	36 ft	\$28.192/ft	\$1,014.91
									36 ft			At 18/10/31
21		M6061T6S2.500X7.000		6061T6 SHEET 2.500 X 7.000 : MATERIAL: 6061-T6/T62/T651 ALUMINUM SHEET OR PLATE SPECIFICATION: QQ-A-250/11 OR AMS-QQ-A-250/11 OR AMS 4025 OR 4027 OR ASTM B209	Firmed -		11/1/18	4 ft	0 ft	4 ft	\$191.25/ft	\$765.00
22		M6061T6B2.500X01.500		6061-T6 Bar 2.50 X 1.50 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft	Firmed -		11/1/18	36 ft	0 ft	36 ft	\$16.74/ft	\$602.64



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Items

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23		M6061T6B0.625X00.625		6061T6 Bar 0.625 X 0.625 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft	Firmed	-	11/1/18	12 ft	0 ft	12 ft	\$1.541/ft	\$18.49
24		M6061T6B2.500X2.500		6061T6 Bar 2.500 X 2.500 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft	Firmed	-	11/1/18	6 ft	0 ft	6 ft	\$28.735/ft	\$172.41
25		M6061T6B1.500X2.000		6061-T6 Bar 1.50 X 2.00 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft	Firmed	-	11/1/18	12 ft	0 ft	12 ft	\$13.969/ft	\$167.63
26		M6061T6B2.000X3.000		6061T6 Bar 2.000 X 3.000 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft	Firmed	-	11/1/18	12 ft	0 ft	12 ft	\$23.705/ft	\$284.46
27		M6061T6A1.000W.125		6061T6 Angle 1.00 X 1.00 X .125W : MATERIAL: 6061-T6/T6510/T6511 ALUMINUM ANGLE AS PER AMS-QQ-A-200/8 receive ft	Firmed	-	11/1/18	20 ft	0 ft	20 ft	\$1.045/ft	\$20.90



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28		MT-4140QT-R0.875		AISI 4140 Quenched &Tempered Steel Round Bar 0.875" Dia. : AISI 4140 Q&T Round Bar : MAT'L: AISI 4130 QUENCHED & TEMPERED ROUND BAR AS PER ASTM 4140 QT OR ASTM 4142 QT	Firmed -		11/1/18	20 ft	0 ft	20 ft	\$4.211/ft	\$84.22
29		MT-4140QT-R2.750		AISI 4140 Quenched &Tempered Steel Round Bar 2.750" Dia. : MAT'L: AISI 4130 QUENCHED & TEMPERED ROUND BAR AS PER ASTM 4140 QT OR ASTM 4142 QT	Firmed -		11/1/18	15 ft	0 ft	15 ft	\$35.91/ft	\$538.65
30	14	MT-4140QT-R4.000		AISI 4140 Quenched &Tempered Steel Round Bar 4.000" Dia. : AISI 4140 Q&T Round Bar : MAT'L: AISI 4130 QUENCHED & TEMPERED ROUND BAR AS PER ASTM 4140 QT OR ASTM 4142 QT	Firmed -		11/1/18	4 ft	0 ft	4 ft	\$95.17/ft	\$380.68
31		MT-HRS-R-6.000		Hot Rolled Steel Round Bar 6.000" Dia. MATERIAL: HOT ROLLED STEEL ROUND BAR ASTM A36 OR ASTM A1011 OR 44W OR ASTM A1018	Firmed -		11/1/18	2 ft	0 ft	2 ft	\$121.075/ft	\$242.15
32	AC	MT-HRS-P-0.625		Hot Rolled Steel Plate 0.625" thk : MATERIAL: HOT ROLLED STEEL PLATE ASTM A36 OR ASTM A1011 OR 44W OR ASTM A1018	Firmed -		11/1/18	16 sf	0 sf	16 sf	\$26.7625/sf	\$428.20



Dart Aerospace Ltd.
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Canada

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PURCHASE ORDER PO041482

Items

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33		M17-4-R0.750		17-4 Round Bar .750 : 17-4 PH / S17400 / TYPE 630 SS ROUND BAR PER AMS 5643/ ASTM A564 GRAIN MUST BE ALONG LENGTH OF BAR MINIMUM YIELD TENSILE STRENGTH = 100 KSI MINIMUM ULTIMATE TENSILE STRENGTH = 150 KSI receive ft	Firmed -		11/1/18	24 ft	0 ft	24 ft	\$8.2754166/ft	\$198.61

Grand Total: \$10,078.75

Order Notes

Procurement Quality Clauses

- A005 right of entry
- A012 chemical and physical test report
- A016 personnel qualification
- A017 raw material identification (as applicable)
- A026 certification of material conformance
- A041 quality management system
- A042 dart notification by supplier
- A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

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ACIER OUELLETTE INC.

935, Boul. du Havre
 Salaberry de Valleyfield (Québec) J6S 5L1
 Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
 Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

DELIVERY - CLIENT
Copy
CO00117760

Billed to	Shipped to	Customer N°	CLI0001056
DART AEROSPACE LTD	1270 , ABERDEEN ST. HAWKESBURY, Ontario, K6A 1K7	Date	2018/10/29
1270 , ABERDEEN ST. HAWKESBURY, Ontario, K6A 1K7	Att : LUSSIER Tél.: (613) 632-5200 X 730	Delivery date	2018/10/30
Instruction	Delivery Route	Your order N°	PO041482
F-M	5	Processed by	Denis Quenneville
		Salesman	OUELLETTE VALLEYFIELD
		Carrier	Net 30 Days
		Credit Terme	

Product Description	Weight	Qty	UM	PCS NB			Internal Use Only				
				CMD	EXP	B/O	IN	I	S	C	OUT
1 HR SHEET 11G (4 X 8) FEH-11G48 2984 1 FEUILLE 48 X 96 Heat : 152886	160.00	32.00	PI2_\$CLB		1X 4X8						
2 PLATE 44W 5/8 RANDOM P44-58-V 4128 1 PL. 4' X 4' Heat : 6913D4	408.00	16.00	PI2_\$CLB		4X4		8' X 20'	✓			8' X 16' 4X4
3 ROUND CR 1 5/8 1018 (R) RCR-158 5283 1 X 12' Heat : 41299AG	84.60	12.00	PI_\$CLB		14 12'						
4 ROUND SS 5/16 304 (R) RSS-516 5773 1 X Heat : 46862	3.12	12.00	PI_\$CLB		1X13'3"						
5 ROUND SS 1/2 303 (R) RSS-12303 5727 3 X Heat : 891B / 936L	24.01	36.00	PI_\$CLB		3X12'11"						
6 ROUND SS 1 303 (R) RSS-1303 8519 2 X Heat : 923K	64.08	24.00	PI_\$CLB		2X12'11"						
7 ROUND SS 3/4 303 (R) RSS-34303 5761 2 X Heat : 5J049	36.05	24.00	PI_\$CLB		1X13'10" 1X13'11"						

Copy

CO00117760

Product Description	Qty	Weight	UM	PCS NB			Internal Use Only				
				CMD	EXP	B/O	IN	I	S	C	OUT
8 ROUND ALU 1 6061-T6 *	18.50	20.00	PI_\$CLB								
RAL-1 5141											
1 X 20'											
Heat : SXE171894											
9 ROUND ALU 1 1/8 6061-T6 *	29.18	28.00	PI_\$CLB								
RAL-118 5124		24.00									
1 X 20' + 1 X 5'											
Heat : Z00238076											
10 ROUND ALU 1 1/2 6061-T6 *	31.14	15.00	PI_\$CLB								
RAL-112 5119											
1 X 15'											
Heat : SXF180601											
11 FLAT ALU 1 X 3 6061-T6 *	42.34	12.00	PI_\$CLB								
FAL-13 2500											
1 X 12'											
Heat : CN1805548											
12 FLAT ALU 1 X 6 6061-T6 *	253.76	36.00	PI_\$CLB								
FAL-16 2536											
3 X 12'											
Heat : SXA180811											
13 SQUARE ALU 5/8 6061-T6 *	5.51	12.00	PI_\$CLB								
CAL-58 1793											
1 X 12'											
Heat : 34021											
14 SQUARE ALU 2 1/2 6061-T6 *	44.10	6.00	PI_\$CLB								
CAL-212 1783											
1 X 6'											
Heat : 39334											
15 FLAT ALU 1 1/2 X 2 6061-T6 *	42.34	12.00	PI_\$CLB								
FAL-1122 2440											
1 X 12'											
Heat : 17184871A											
16 FLAT ALU 2 X 3 6061-T6 *	84.67	12.00	PI_\$CLB								
FAL-23 2560											
1 X 12'											
Heat : 18020701B											

Copy

CO00117760

Product Description	Qty	Weight	UM	PCS NB			Internal Use Only				
				CMD	EXP	B/O	IN	I	S	C	OUT
17 ANGLE ALU 1 X 1 X 1/8 R 6061-T6 *	5.62	20.00	PI_\$CLB								
AAL-1118 1301 1 X 20' Heat : SXF180280											
18 ROUND 4140 HEAT TREAT 4 (R)	176.28	4.00	PI_\$CLB								
R4140-4H 4965 1 X 4' Heat : C149271											
19 ROUND CR 6 1018 (R)	192.26	2.00	PI_\$CLB								
RCR-6 5354 1 X 2' Heat : 1702492											
20 PLATE 44W 5/8 RANDOM	408.00	16.00	PI2_\$CLB								
P44-58-V 4128 1-PL 4' X 4' 6913D4											
21 ROUND SS 3/4 17-4PH NS	36.05	24.00	PI_\$CLB								
RSS-34174 9268 2 X Heat : 95G0264-G5011											

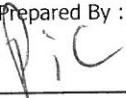
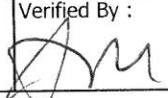
Note : ATTENTION: MILL TEST REQUIS

Total Weight (Lbs) : 2 149.61

NIR : R-109516-6

Conditions :

All sold and delivered materials remain the property of "Acier Ouellette Inc" until payment is made in full, complete and cashed. All lost materials are at the buyer's expense. The warranty offered by "Acier Ouellette Inc." is the same as offered and honored by the manufacturer and his warranty is transferred by "Acier Ouellette Inc." to the client. The buyer hereby accepts to respect the following conditions: Net 30 days from billing date and the buyer accepts to pay administration charges of 2% per month (24% per annum) on all past due amounts over 30 days. Any default in respect with this contract will lead to payment by acceleration and permits to the seller, at his choice to claim for the balance due or the repossession of the goods sold. All claims must be made within five (5) days with this document enclosed. Any merchandise that has been damaged, cut or modified cannot be returned. All goods returned must be with our authorization and are subject to a 25% restocking charge.

Prepared By :	Verified By :
	

Delivered By :	Time

	Y	M	D
Customer's Signature			
	Date		

P44-58820

52357 TRA-3457



ESSAR STEEL ALGOMA INC., 105 West Street, Sault Ste. Marie, Ontario, Canada P6A 7B4

SO No., Item & Date: 8066438 000040 2018/06/18	Shipment No. & Date: 1000301040 2018/09/25	TC No., Date & Time: ESA-516120 2018/09/27 - 18:30:15														
Sold to Customer Name and Address: LES ACIER TRANSBEC (1997) LTEE BOULLE CORBUSIER #201-4054 LAVAL, Quebec, Canada H7L 5R2	Ship to Customer Name and Address: LES ACIER TRANSBEC (1997) LTEE BOUL J.F. KENNEDY 22 ST JEROME, Quebec, Canada J7Y 4B6	Customer PO No./Item: OU-50966 / 4 BOL No.: 1000301040 Cust. Part No.: Carrier: SLB TRANSIT INC. - 53026 06														
Customer Specification: HR STEEL PLATE Carbon Multi Cert CSA G40.21 38W 2013 UDS1 05/14 / CSA G40.21 14W 2013 UDS1 05/14 / ASTM A36 (14) / ASME SA36 (2017) As Rolled Std Thickness Tol Structural Steel Top and Bottom Standard Surface Flatness 1/2 A6 Fine Grain Fully Killed																
Supplementary Instructions: Test Cert 1:parcand@aciertransbec.com Test Cert 2: nathalie.legault@aciertransbec.com																
Insp T/R : Test Report As Per Spec		Cust Use: STRUCTURAL STEEL														
ESSAR STEEL ALGOMA INC. HEREBY CERTIFIES THAT THE MATERIAL HEREIN DESCRIBED WAS MADE AND TESTED IN ACCORDANCE WITH THE RULES OF THE SPECIFICATION SHOWN. ALL RESULTS ARE RETAINED IN ACCORDANCE WITH THE COMPANY'S STANDARD RECORD KEEPING PRACTICES. THIS MILL TEST REPORT MAY NOT BE REPRODUCED EXCEPT IN FULL WITHOUT WRITTEN APPROVAL OF ESSAR STEEL ALGOMA INC. IF YOU RECEIVE THIS DOCUMENT AND ARE NOT THE INTENDED RECEIVER, PLEASE CALL (705)945-4055 FOR INSTRUCTIONS ON METHOD OF DISPOSAL OF DOCUMENT. THIS TEST REPORT HAS BEEN GENERATED BY A COMPUTERIZED SYSTEM AND IS VALID WITHOUT A PHYSICAL SIGNATURE.																
MEETS EN 10204/2004 TYPE 3.1 ISO QUALITY AND ENVIRONMENTAL CERTIFICATES AVAILABLE AT WWW.ALGOMA.COM																
ALL HEATS FULLY KILLED. HEATS INDICATED WITH (*) FINE GRAINED. HEATS INDICATED WITH (†) Made In Canada for NAFTA duty preference and NAFTA marking purposes																
Dimensions (T x W x L)	Batch No.	Heat No-MS	Quantity	No. of Pcs	Dimensions (T x W x L)	Batch No.	Heat No-MS	Quantity	No. of Pcs							
0.6250 " x 96.000 " x 240.00 "	BH8247A	2871V4-06	4,084 LB	1	0.6250 " x 96.000 " x 240.00 "	BF6951	6913D4-05	8,168 LB	2							
*****CHEMICAL PROPERTIES*****																
Heat No. (wt%)	C	Mn	P	S	Si	Cr	Ni	Cu	Mo	Al	Nb	V	B	Ti	N	DD
2871V4*	0.16	1.19	0.017	0.005	0.286	0.02	0.01	0.02	0.00	0.034	0.000	0.032	0.0000	0.001	0.0025	0.37
6913D4*	0.14	1.14	0.011	0.009	0.318	0.03	0.02	0.03	0.01	0.040	0.000	0.035	0.0001	0.002	0.0032	0.35

heat: 6913D4

KASHIF REHMAN
MANAGER METALLURGICAL SERVICES

"WARNING" THE TEST RESULTS AND VALUES REPORTED HEREIN INDICATE ONLY THAT (1) THE PARTICULAR STEEL FOR WHICH THIS CERTIFICATE IS ISSUED MEETS THE MINIMUM SPECIFIED YIELD STRENGTH AND (2) THE ANALYSIS AND PHYSICAL PROPERTIES OF SUCH STEEL ARE IN CONFORMANCE WITH THE REQUIREMENTS OF THE SPECIFICATION INDICATED. THE RESULTS OR VALUES REPORTED HEREIN CAN NOT BE USED TO QUALIFY THE STEEL FOR ANY SPECIFICATION OTHER THAN THE ONE INDICATED AND CAN NOT BE RELIED UPON FOR ANY PURPOSE (INCLUDING DESIGN OR CALCULATION) AS REPRESENTING THE ACTUAL STRENGTH OF SUCH STEEL.



ESSAR STEEL ALGOMA INC., 105 West Street, Sault Ste. Marie, Ontario, Canada P6A 7B4

SO No. Item & Date: 8066438 000040 2018/06/18	Shipment No. & Date: 1000301D40 2018/09/25	TC No., Date & Time: ESA-515120 2018/09/27 - 18:30:15										
Sold to Customer Name and Address: LES ACIER TRANSBEC (1997) LTEE BOUL LE CORBUSIER #201-4054 LAVAL, Quebec, Canada H7L 5R2	Ship to Customer Name and Address: LES ACIER TRANSBEC (1997) LTEE BOUL J.F. KENNEDY 22 ST JEROME, Quebec, Canada J7Y 4B6	Customer PO No./Item: OU-5096674 BOL No.: 1000301040 Cust. Part No.: Carrier: SLB TRANSIT INC. - 53026 06										
Customer Specification: HR STEEL PLATE Carbon Multi Cert CSA G40.21 38W 2013 UDF 1 05/14 / CSA G40.21 44W 2013 UDF 1 05/14 / ASTM A36 (14) / ASME SA36 (2017) As Rolled Std Thickness Tol Structural Steel Top and Bottom Standard Surface Flatness 1/2 A6 Fine Grain Fully Killed												
Supplementary Instructions: Test Cert 1:parcand@aciortransbec.com Test Cert 2: nathalie.legault@aciortransbec.com		Cust Use: STRUCTURAL STEEL										
Insp T/R : Test Report As Per Spec												
ESSAR STEEL ALGOMA INC. HEREBY CERTIFIES THAT THE MATERIAL HEREIN DESCRIBED WAS MADE AND TESTED IN ACCORDANCE WITH THE RULES OF THE SPECIFICATION SHOWN. ALL RESULTS ARE RETAINED IN ACCORDANCE WITH THE COMPANY'S STANDARD RECORD KEEPING PRACTICES. THIS MILL TEST REPORT MAY NOT BE REPRODUCED EXCEPT IN FULL WITHOUT WRITTEN APPROVAL OF ESSAR STEEL ALGOMA INC. IF YOU RECEIVE THIS DOCUMENT AND ARE NOT THE INTENDED RECEIVER, PLEASE CALL (705)945-4095 FOR INSTRUCTIONS ON METHOD OF DISPOSAL OF DOCUMENT. THIS TEST REPORT HAS BEEN GENERATED BY A COMPUTERIZED SYSTEM AND IS VALID WITHOUT A PHYSICAL SIGNATURE.												
MEETS EN 10204-2004 TYPE 3.1 ISO QUALITY AND ENVIRONMENTAL CERTIFICATES AVAILABLE AT WWW.ALGOMA.COM												
MECHANICAL PROPERTIES												
Tensile Tests												
Heat No.	Batch No.	SRCE	LAB	GAUGE	COND	METH	DIR	LOC	YIELD(KSI)	TENSILE(KSI)	EL SCALE	ELONG(%)
6913D4	1	166°	ALG	0.6250	AR	.2	T	F	52.0	73.0	8"	26
6913D4	1	166°	ALG	0.6250	AR	.2	T	F	51.0	73.0	8"	26
871V4		166°	ALG	0.6250	AR	.2	T	F	51.0	74.0	8"	27
871V4		166°	ALG	0.6250	AR	.2	T	F	52.0	74.0	8"	27

KASHIF REHMAN
MANAGER METALLURGICAL SERVICES

"WARNING" THE TEST RESULTS AND VALUES REPORTED HEREIN INDICATE ONLY THAT: (1) THE PARTICULAR STEEL FOR WHICH THIS CERTIFICATE IS ISSUED MEETS THE MINIMUM SPECIFIED YIELD STRENGTH AND (2) THE ANALYSIS AND PHYSICAL PROPERTIES OF SUCH STEEL ARE IN CONFORMANCE WITH THE REQUIREMENTS OF THE SPECIFICATION INDICATED. THE RESULTS OR VALUES REPORTED HEREIN CAN NOT BE USED TO QUALIFY THE STEEL FOR ANY SPECIFICATION OTHER THAN THE ONE INDICATED AND CAN NOT BE RELIED UPON FOR ANY PURPOSE (INCLUDING DESIGN OR CALCULATIONS) AS REPRESENTING THE ACTUAL STRENGTH OF SUCH STEEL.

8

7

6

5

4

3

2

1

REV	DESCRIPTION	ECN #	DATE	BY	APPROVED
B	REMOVED LENGTH AND WIDTH DIMENSIONS	17-675	26/09/2017	SAC	WM

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL:

HOT ROLLED STEEL PLATE

SPECIFICATION:

ASTM A36 OR ASTM A1011 OR 44W OR ASTM A1018

PART NUMBER:

MT-HRS-P-[T.TTT]

EXAMPLE:

WHERE T.TTT IS PLATE THICKNESS IN INCHES

MT-HRS-P-0.750

TOLERANCES PER MANUFACTURER SPECIFICATIONS

DART
AEROSPACE Montreal, Quebec, Canada

HOT ROLLED STEEL PLATE

DWG NO	MT-HRS-P	REV
TITLE		A
DESIGN BY:	SAC 0/8/2017	XX \pm .005 FRACTIONAL
DRAWN BY:	SAC 09/27/2017	XX \pm .01 ANGLES \pm 5°
CHECKED:	VM 09/27/2017	X \pm .1 SURFACES \pm 1/8
MFG. APPROV:	D.P. 09/27/2017	1. DIMENSIONS ARE IN INCHES 2. UNLESS OTHERWISE SPECIFIED
APPROVED:	WM 10/01/2017	2. INTERPRETATION AND TOL PER ASME Y14.5M 2009
DATE:	9/27/2017	3. TOLERANCES ARE IN INCHES 4. UNLESS OTHERWISE SPECIFIED
SCALE:	NTS	5. WEIGHT: N/A
		6. SHEET 1 OF 1

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THIS DOCUMENT IS UNCLASSIFIED AND IS RELEASED ON THE EXPRESS CONDITION THAT IT IS NOT REPRODUCED
FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION
DRAFT DATE: 09/27/2017

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-HLS-P-0.625
 DATE: 18/10/31

PO / BATCH NO.: P0041482/5123399/5123415

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 20.5F
 QUANTITY INSPECTED: 32sF
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.625"
 THICKNESS RECEIVED: 0.625"
 SHEET SIZE ORDERED: 4x4'
 SHEET SIZE RECEIVED: 4x4'

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	(N)	
CORRECT FINISH	(Y)	N	
CORROSION	Y	(N)	
CORRECT GRAIN DIRECTION	(Y)	N	
CORRECT MATERIAL PER M-DRAWING	(Y)	N	ASTM A36
CORRECT THICKNESS	(Y)	N	
PHOTO REQUIRED	Y	(N)	
CORRECT REF # TO LINK CERT	(Y)	N	47.691304
CORRECT MATERIAL IDENTIFICATION	(Y)	N	
CORRECT M# ON THE MATERIAL	(Y)	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	(N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	(N)	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>AT</u>	SIGNED OFF BY: _____
DATE: <u>18/10/31</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

5283

RCK-158

51181

TRA-2822

2P



ARANA Y LUPARDO, 2
48490 UGAO-MIRAVALLS/VIZCAYA (SPAIN)
Tfno.: 946480211
Fax: 946480128
Email: calpradera@calibradospradera.es
www.calibradospradera.es

CERTIFICADO DE CALIDAD/QUALITY REPORT

De acuerdo a /Made according to:

EN 10204/DIN 50049

3.1

Nº CERTIFICADO / CERTIFICATE NR.: 49935

ALBARAN 49935 Delivery Note Nr.	CLIENTE LES ACIERS TRANSBEC (1997) LTÉE CUSTOMER
------------------------------------	---

Norma : EN 10277

Productos Calibrados de acero. Condiciones técnicas de suministro.

Norm :

Bright steel products. Technical delivery conditions.

PRODUCTO SOLICITADO / PRODUCT ACCORDING ASTM A108

EXPEDIDO Shipped Order	DESCRIPCION Description	KGS	TOLENCIA TOLERANCE	MEDIDA MEASUREMENT
PAR-48735	1018 RED. ESTIRADO 41,28 (1 5/8")	1.064	- 0,076	140945 41,28
MJP-48737	1018 RED. ESTIRADO 57,15 (2 1/4")	2.102	- 0,076	140959 57,15
MJP-48737	1018 RED. TORNEADO 76,20 (3")	900	- 0,102	140961 76,20
OU-47949	1018 RED. ESTIRADO 41,28 (1 5/8") <i>RCK-158</i>	1.064	- 0,076	141117 41,28
OU-47949	1018 RED. ESTIRADO 55,56 (2 3/16") <i>RCK-2316</i>	940	- 0,076	141118 55,56
VI-48475	1018 RED. ESTIRADO 50,80 (2")	4.020	- 0,076	141141 50,80
PAR-48143	1018 RED. ESTIRADO 50,80 (2")	3.042	- 0,076	141260 50,80
VI-48475	1018 RED. ESTIRADO 57,15 (2 1/4")	922	- 0,076	141140 57,15
PAR-48143	1018 RED. ESTIRADO 57,15 (2 1/4")	920	- 0,076	141262 57,15
PAJ-48144	1018 RED. ESTIRADO 57,15 (2 1/4")	2.084	- 0,076	141274 57,15
PAR-48143	1018 RED. ESTIRADO 55,56 (2 3/16")	1.876	- 0,076	141261 55,56
MJP-48145	1018 RED. ESTIRADO 57,15 (2 1/4")	3.126	- 0,076	141284 57,15
MN-48543	1018 RED. ESTIRADO 41,28 (1 5/8")	994	- 0,076	141427 41,28
MN-48543	1018 RED. ESTIRADO 57,15 (2 1/4")	922	- 0,076	141423 57,15

Composición química de la colada / Chemical Analysis of Heat

MEDIDA Measurement	OF	COLADA Cast Nr.	% C	% Cu	% Mn	% N	% P	% S	% Si
41,28 0,00	140945	41299 AG	0,165	0,090	0,783	0,003	0,020	0,022	0,195
57,15 0,00	140959	41599 AG	0,173	0,132	0,817	0,003	0,010	0,022	0,218
76,20 0,00	140961	42108	0,180	0,230	0,780	0,000	0,015	0,019	0,240
41,28 0,00	141117	41299 AG	0,165	0,090	0,783	0,003	0,020	0,022	0,195
55,56 0,00	141118	41340 IS	0,170	0,000	0,650	0,000	0,013	0,025	0,310
50,80 0,00	141141	42270 IS	0,170	0,000	0,650	0,000	0,015	0,027	0,310
50,80 0,00	141260	42270 IS	0,170	0,000	0,650	0,000	0,015	0,027	0,310
57,15 0,00	141140	41599 AG	0,173	0,132	0,817	0,003	0,010	0,022	0,218
57,15 0,00	141262	41599 AG	0,173	0,132	0,817	0,003	0,010	0,022	0,218
57,15 0,00	141274	42287 IS	0,170	0,000	0,600	0,000	0,011	0,024	0,300
55,56 0,00	141261	41340 IS	0,170	0,000	0,650	0,000	0,013	0,025	0,310
57,15 0,00	141284	42287 IS	0,170	0,000	0,600	0,000	0,011	0,024	0,300
41,28 0,00	141427	41299 AG	0,165	0,090	0,783	0,003	0,020	0,022	0,195
57,15 0,00	141423	41599 AG	0,173	0,132	0,817	0,003	0,010	0,022	0,218

Características mecánicas / Mechanical properties

heat: 41299 AG



ARANA Y LUPARDO, 2
48490 UGAO-MIRAVALLES/VIZCAYA (SPAIN)
Tfno.: 946480211
Fax: 946480128
Email: calpradera@calibradospradera.es
www.calibradospradera.es

CERTIFICADO DE CALIDAD/QUALITY REPORT

De acuerdo a /Made according to:

EN 10204/DIN 50049

3.1

Nº CERTIFICADO / CERTIFICATE NR.: 49935

ALBARAN 49935 Delivery Note Nr.	CLIENTE LES ACIERS TRANSBEC (1997) LTÉE CUSTOMER
------------------------------------	---

Norma : EN 10277

Productos Calibrados de acero. Condiciones técnicas de suministro.

Norm :

Bright steel products. Technical delivery conditions.

MEDIDA Measurement	OF	COLADA Cast Nr.	Resistencia Tens. strength N/mm ²	Lím.elástico Yield point 0,2% N/mm ²	Alargamiento Elongation Lo=50 mm.	Dureza HB Hardness HB
41,28	140945	41299 AG	550,00	0,00	0,00	0,00
57,15	140959	41599 AG	457,00	0,00	0,00	0,00
76,20	140961	42108	485,00	302,00	34,20	0,00
41,28	141117	41299 AG	550,00	0,00	0,00	0,00
55,56	141118	41340 IS	0,00	0,00	0,00	169,00
50,80	141141	42270 IS	0,00	0,00	0,00	139,00
50,80	141260	42270 IS	0,00	0,00	0,00	139,00
57,15	141140	41599 AG	457,00	0,00	0,00	0,00
57,15	141262	41599 AG	457,00	0,00	0,00	0,00
57,15	141274	42287 IS	0,00	0,00	0,00	147,00
55,56	141261	41340 IS	0,00	0,00	0,00	169,00
57,15	141284	42287 IS	0,00	0,00	0,00	147,00
41,28	141427	41299 AG	550,00	0,00	0,00	0,00
57,15	141423	41599 AG	457,00	0,00	0,00	0,00

Calidad Superficial

DESCRIPCIÓN Description	OF	Clase EN 10277-1

Observaciones: BARRAS DE ACERO ESTIRADAS / TORNEADAS EN FRIO SIN ALEAR

DEPARTAMENTO DE CALIDAD: Certifica que el mencionado producto cumple con las especificaciones del pedido.
QUALITY DEPARTMENT: Certify that the product fulfils the order specifications.

Fecha/Date: 04/12/2017

Firmado: Susana Fernández
Directora de Calidad



Sistema de
Gestión
ISO 9001:2008
www.tuv.com
ID: 1105069024

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: AISI 1018-1025 ROUND BAR
SPECIFICATION: MIL-S-7097 OR ASTM A108
PART NUMBER: M1018-RD DDD WHERE D DDD = DIAMETER IN INCHES

PER ASTM A108 AS FOLLOWS:

SIZE	TOLERANCE
UP TO 1 5/8" INCL.	+0.000/-0.002
OVER 1 5/8" TO 2 5/8" INCL.	+0.000/-0.003
OVER 2 5/8" TO 4 0/8" INCL.	+0.000/-0.004
OVER 4 0/8" TO 6 0/8" INCL.	+0.000/-0.005
OVER 6 0/8" TO 8 0/8" INCL.	+0.000/-0.006

RECEIVED
2012-09-24
J.W.

B	REFORMAT ADD ASTM A108 ADD TOLERANCES	CP	17/09/05
A	NEW ISSUE	DS	01/06/12
REV	DESCRIPTION	BY	DATE
DESIGN	DS	DART AEROSPACE LTD	
DRAWN	CP	HAWKESBURY, ONTARIO, CANADA	REV. B
CHECKED	A.P.	DRAWING NO.	1 OF 1
MFG. APPR.		M1018-R	SCALE
APPROVED		TITLE	NTS
DE APPR.		1018-1025 ROUND BAR	
DATE	12/09/05	Copyright © 2005 by DART AEROSPACE LTD All rights reserved. No part of this drawing may be reproduced without the express written consent of DART Aerospace Ltd.	

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M1018R1.625
 DATE: 18/10/01

PO / BATCH NO.: P0041482/S123481

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 12ft
 QUANTITY INSPECTED: 12ft
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.625"
 THICKNESS RECEIVED: 1.625"
 SHEET SIZE ORDERED: —
 SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	N	
CORRECT FINISH	Y	N	
CORROSION	Y	N	
CORRECT GRAIN DIRECTION	Y	N	
CORRECT MATERIAL PER M-DRAWING	Y	N	<i>ASTM A108</i>
CORRECT THICKNESS	Y	N	
PHOTO REQUIRED	Y	N	
CORRECT REF # TO LINK CERT	Y	N	<i>41299 AG</i>
CORRECT MATERIAL IDENTIFICATION	Y	N	
CORRECT M# ON THE MATERIAL	Y	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>AT</u>	SIGNED OFF BY: _____
DATE: <u>18/10/01</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

5773

RSS-516

17692

51540

Fidelity C18636

VIRAJ

VIRAJ PROFILES LIMITED

Works: SURVEY NO.- 25/1, 25/2, 26 & 34, Village- MAAN, Taluka- PALGHAR, Dist- THANE, MAHARASHTRA -401 506, INDIA,
e-mail- vielqc@viraj.com

TEST CERTIFICATE

ORDER NO	PACKING LIST NO	INSPECTION NO	DATE
P006160	64/75011211/23	100008823006	05.09.2017
		GRADE	HEAT No
		T-304/304L	46862

BUNDLE NO :
1100756952 ,1100756951 ,1100756950 ,1100756949 ,

DESCRIPTION
STAINLESS STEEL BRIGHT BARS

COLD DRAWN POLISHED - 2H

SIZE	SHAPE	TOLERANCE	LENGTH	PIECES	WEIGHT
5/16"	ROUND	ASTM A484	12' - 14'	1296	4,083.000 LB

CHEMICAL ANALYSIS

%C	%Mn	%Si	%S	%P	%Cr	%Ni	%Cu	%Mo	%Co	%N2
0.0150	1.530	0.260	0.0240	0.0340	18.260	8.030	0.680	0.370	0.140	0.08500

TEST RESULTS

0.2% yield strength ksi	Tensile Strength ksi	Elongation %	Reduction Of Area %	Hardness BHN	Grain Size NOS
94.0	109.0	43.0	73.0	224.0	7.0

SPECIFICATION:

MATERIAL CONFIRMS TO DIN EN 10088-3:2005:WNR 1.4301/1.4307,EN 10222-5 AND EN 10272 COND-A & ASTM A182/A182M-16a, ASTM A276/A276M-17 COND A, ASTM A479/A479M-17 COND A, A193/A193M-16, B8 CL-1, A320/A320M-15a, B8 CL-1, A484 16, A388/A388M-05. ASME SA182-14, SA479-15, SA 193-11 B8 CL-1, SA320-11 B8 CL-1. ASTM A314-2008. IGC SATISFACTORY AS PER ASTM A 262-10 PRACTICE E. AMS 5639H/AMSS647J (EXCEPT MARKING), QQ-S-763F, NACE MR0103-2012, NACE-MR0175/ISO-15156-2015. SAE-AMS-S-7720A, MIL-S-862-B. AISI 304/304L & UNS#S30400/S30403. CERTIFICATION AS PER EN 10204-3.1.

REMARKS

MATERIAL IS FREE FROM MERCURY CONTAMINATION, FREE FROM WELD OR WELD REPAIRS, MICRO:FREE FROM CONTINOUS CARBIDE NETWORK ON GRAIN BOUNDARIES. MACRO:GOOD, MINIMUM SOLUTION ANNEALING TEMPERATURE 1050C, SOAKING TIME 1/2 HRS, WATER QUENCHED. MELT SOURCE:AOD. WE CONFIRM THAT THE MATERIAL HAS BEEN TESTED AND FOUND TO BE FREE FROM RADIOACTIVE CONTAMINATION.COUNTRY OF ORIGIN: INDIA.

We hereby certify that the material described above has been tested and complies with the terms of order/contract.


WORKS INSPECTOR
K R K MURTHY

Heat 46862

15

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: AISI 304/316 SS ROUND BAR
(NOTE: AISI 303 NOT ACCEPTABLE)

SPECIFICATION:
ASTM A276

PART NUMBER:
M304R|D.DDD|
| DIA.

WHERE "D.DDD" = DIAMETER IN INCHES
E.G. 0.75" ROUND BAR = M304R0.750

RELEASED
CHB/25/18

B	REFORMAT DWG. ADD SPEC(S (2N D6-1) REF PART 08-200A	C/P	09-07-15
A	NEW ISSUE	AJS	08-01-03
REV.	DESCRIPTION	BY	DATE
DESIGN	AJS	DART AEROSPACE LTD	
DRAWN	<u>CHB</u>	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<u>CHB</u>	DRAWING NO.	REV. B
MFG. APPR.	<u>CHB</u>	M304R	SHEET 1 OF 1
APPROVED	<u>CHB</u>	TITLE	SCALE
DE APPR.	<u>CHB</u>	304/316 ROUND BAR	NTS
DATE	09.07.15	COPYRIGHT 2008 BY DART AEROSPACE LTD ALL RIGHTS RESERVED. NO PART OF THIS DRAWING MAY BE COPIED, REPRODUCED, OR TRANSFERRED IN WHOLE OR IN PART, IN ANY FORM, BY ANY MEANS, WITHOUT THE WRITTEN CONSENT OF DART AEROSPACE LTD.	

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M304R0313
 DATE: 18/11/01

PO / BATCH NO.: P0041482/5123400

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 12ft
 QUANTITY INSPECTED: 12ft
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.313"
 THICKNESS RECEIVED: 0.313"
 SHEET SIZE ORDERED: —
 SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)		COMMENTS
	Y	N	
SURFACE DAMAGE	<u>Y</u>	<u>N</u>	
CORRECT FINISH	<u>Y</u>	<u>N</u>	
CORROSION	<u>Y</u>	<u>N</u>	
CORRECT GRAIN DIRECTION	<u>Y</u>	<u>N</u>	
CORRECT MATERIAL PER M-DRAWING	<u>Y</u>	<u>N</u>	<i>ASTM A276</i>
CORRECT THICKNESS	<u>Y</u>	<u>N</u>	
PHOTO REQUIRED	<u>Y</u>	<u>N</u>	
CORRECT REF # TO LINK CERT	<u>Y</u>	<u>N</u>	<i>11.46862</i>
CORRECT MATERIAL IDENTIFICATION	<u>Y</u>	<u>N</u>	
CORRECT M# ON THE MATERIAL	<u>Y</u>	<u>N</u>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<u>Y</u>	<u>N</u>	
DOES THIS REQUIRE AN EXTRUSION REPORT	<u>Y</u>	<u>N</u>	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>A1</u>	SIGNED OFF BY: _____
DATE: <u>18/11/01</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

5727

RSS-12303

52341

20600



North American Stainless Canada Inc.
140 Imperial Road North
Guelph, ON N1K1Z3
Canada

METALLURGICAL TEST REPORT

6870 Highway 42 East
Ghent, KY 41045-9615
(502) 347-6000

(4)

Certificate: 449240, 1

Date: 9/27/2018 Page: 1

Customer: 007205 001

Steel: 303

Your Order: 5400400780

NAS Order: PN 0096303 03

Heat Treat Code: 48,866

Finish: CD

Corrosion:

PRODUCT DESCRIPTION:

Round Bar, Annealed, Cold Draw
UNS 30300, ASTM A582/17 EN 10204 3.1, ASTM A484/18
AMS 5640V TYPE 1, QQS-764B CONDITION A
SOLUTION ANNEAL TEMP 1900F MIN, ASTM F899/12B

REMARKS:

COMPLIES W/REQUIREMENTS OF DFAR 252.225-7009 EU DIRECTIVE
2011/65/EU. ROHS. EAF+AOD+CC. NO WELD REPAIR. MELTED AND MFG
IN USA FREE FROM MERCURY AND LOW MELTING ALLOY CONTAMINATION

Product Id	Skid #	Diameter	Size	Weight	Length	Mark	Pieces	Commodity Code
BJ7675 7		.5000		1,393	144.00	35	1	
CHEMICAL ANALYSIS CM(Country of Melt) CM(Spain) US(United States) ZA(South Africa) JP(Japan) ANAB, ISO/IEC 17025, Certificate# L2323 Chemical Analysis per ASTM A751/16a								
NAS Heat	CM	C %	CO %	CR %	CU %	MN %	MO %	N %
891B	US	.037	.10	17.15	.30	1.85	.321	.039
		S %	SI %					
		.3370	.46					

MECHANICAL PROPERTIES

Product Id	1 o c	d i x	HB No.	.2YS KSI	UTS KSI	RA %	Elng % 2"
BJ7675 7	R	L	213.0	84.51	109.52	33.90	35.00

Heat: 891B

NAS hereby certifies that the analysis on this certification is correct. Based upon the results and the accuracy of the test methods used, the material meets the specifications stated. These results relate only to the items tested and this report cannot be reproduced, except in its entirety, without the written approval of NAS.

Technical
Dept. Mgr.

KRIS LARK

9/27/2018



North American Stainless Canada Inc.
740 Imperial Road North
Guelph, ON N1K1Z3
Canada

METALLURGICAL TEST REPORT

6870 Highway 42 East
Ghent, KY 41045-9615
(502) 347-6000

Certificate: 449240 2

Date: 9/27/2018 Page: 1

Customer: 007205 001

Steel: 303

Your Order: 5400400780

NAS Order: PN 0096303 03

Heat Treat Code: 48,866

Finish: CD
Corrosion:

PRODUCT DESCRIPTION:

Round Bar, Annealed, Cold Draw
UNS 30300, ASTM A582/17 EN 10204 3.1, ASTM A484/18
AMS 5640V TYPE 1, QQS-764B CONDITION A
SOLUTION ANNEAL TEMP 1900F MIN, ASTM F899/12B

REMARKS:

COMPLIES W/REQUIREMENTS OF DFAR 252.225-7009 EU DIRECTIVE
2011/65/EU. RoHS, EAF+AOD+CC. NO WELD REPAIR. MELTED AND MFG
IN USA FREE FROM MERCURY AND LOW MELTING ALLOY CONTAMINATION

Product Id	Skid #	Diameter	Size	Weight	Length	Mark	Pieces	Commodity Code
BJ7675 8		.5000		1,211		144.00	36	1

ANAB, ISO/IEC 17025, Certificate# L2323
Chemical Analysis per ASTM A751/14a

NAS Heat	CM	C %	CO %	CR %	CU %	MN %	MO %	N %	NI %	P %
	US	.037	.10	17.15	.30	1.85	.321	.039	8.48	.032

S % SI %

.3370 .46

MECHANICAL PROPERTIES

Product Id	o d c r No.	HB KSI	.2YS KSI	UTS KSI	RA %	Elng % 2"
BJ7675 8	R L	213.0	84.51	109.52	33.90	35.00

Heat: 891B

NAS hereby certifies that the analysis on this certification is correct. Based upon the results and the accuracy of the test methods used, the material meets the specifications stated. These results relate only to the items tested and this report cannot be reproduced, except in its entirety, without the written approval of NAS.

Technical
Dept. Mgr.

KRIS LARK

9/27/2018



North American Stainless Canada Inc.
740 Imperial Road North
Guelph, ON N1K1Z3
Canada

METALLURGICAL TEST REPORT

6870 Highway 42 East
Ghent, KY 41045-9615
(502) 347-6000

Certificate: 449240 3

Customer: 007205 001

Date: 9/27/2018 Page: 1

teel: 303

Finish: CD

Your Order: 5400400780

NAS Order: PN 0096303.03

Heat Treat Code: 48,866

Corrosion:

PRODUCT DESCRIPTION:

Round Bar, Annealed, Cold Draw
UNS 30300 (ASTM A582/17 EN 10204 3.1, ASTM A484/18
AMS 5640V TYPE 1, QQS-764B CONDITION A
SOLUTION ANNEAL TEMP 1900F MIN, ASTM F899/12B

REMARKS:

COMPLIES W/REQUIREMENTS OF DFAR 252.225-7009 EU DIRECTIVE
2011/65/EU.RoHS. EAF+AOD+CC. NO WELD REPAIR. MELTED AND MFG
IN USA FREE FROM MERCURY AND LOW MELTING ALLOY CONTAMINATION

Product Id	Skid #	Diameter	Size	Weight	Length	Mark	Pieces	Commodity Code
BJ7679 9		.5000		900	144.00	37	1	
CHEMICAL ANALYSIS CM(Country of Melt) ES(Spain) US(United States) ZA(South Africa) JP(Japan) ANAB, ISO/IEC 17025, Certificate# L2323 Chemical Analysis per ASTM A751/14a								
NAS Heat	CM	C %	CO %	CR %	CU %	MN %	MO %	N %
936L	US	.056	.16	17.16	.28	1.95	.279	.044
		S %	SI %					
		.3255	.45					

MECHANICAL PROPERTIES

Product Id	l o c d i r d i HB No.	.2YS KSI	UTS KSI	RA %	Elong % 2"
BJ7679 9	R L	192.0	79.60	104.55	37.01 22.00

heat: 936L

NAS hereby certifies that the analysis on this certification is correct. Based upon the results and the accuracy of the test methods used, the material meets the specifications stated. These results relate only to the items tested and this report cannot be reproduced, except in its entirety, without the written approval of NAS.

Technical
Dept. Mgr.

KRIS LARK

9/27/2018



North American Stainless Canada Inc.
740 Imperial Road North
Guelph, ON N1K1Z3
Canada

METALLURGICAL TEST REPORT

6870 Highway 42 East
Ghent, KY 41045-9615
(502) 347-6000

Certificate: 449240 4

Date: 9/27/2018 Page: 1

Customer: 007205 001

Steel: 303

Your Order: 5400400780

NAS Order: PN 0096303 03

Heat Treat Code: 48,866

Finish: CD
Corrosion:

PRODUCT DESCRIPTION:

Round Bar, Annealed, Cold Draw
UNS 30300, ASTM A582/17 EN 10204 3.1, ASTM A484/18
AMS 5640V TYPE 1, QQS-764B CONDITION A
SOLUTION ANNEAL TEMP 1900F MIN, ASTM F899/12B

REMARKS:

COMPLIES W/REQUIREMENTS OF DFAR 252.225-7009 EU DIRECTIVE
2011/65/EU.ROHS. EAF+AOD+CC. NO WELD REPAIR. MELTED AND MFG
IN USA FREE FROM MERCURY AND LOW MELTING ALLOY CONTAMINATION

Product Id	Skid #	Diameter	Size	Weight	Length	Mark	Pieces	Commodity Code
BJ7682 4		.5000		977	144.00	38	1	

CHEMICAL ANALYSIS CM(Country of Melt) ES(Spain) US(United States) ZA(South Africa) JP(Japan) ANAB, ISO/IEC 17025, Certificate# L2323 Chemical Analysis per ASTM A751/14a										
NAS Heat	CM	C %	CO %	CR %	CU %	MN %	MO %	N %	NI %	P %
936L	US	.056	.16	17.16	.28	1.95	.279	.044	8.51	.033
	S %	SI %								
	.3255	.45								

MECHANICAL PROPERTIES

Product Id	1 o c d i r HB No.	.2YS KSI	UTS KSI	RA %	Elng % 2"
BJ7682 4	R L 192.0	79.60	104.55	37.01	22.00

Heat: 936L

NAS hereby certifies that the analysis on this certification is correct. Based upon the results and the accuracy of the test methods used, the material meets the specifications stated. These results relate only to the items tested and this report cannot be reproduced, except in its entirety, without the written approval of NAS.

Technical
Dept. Mgr.

KRIS LARK

9/27/2018

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: AISI 303 SS ROUND BAR
(NOTE: AISI 304/316 NOT ACCEPTABLE)

SPECIFICATION:
ASTM A562

PART NUMBER:
M303RD DDD

WHERE "D.DDD" = DIAMETER IN INCHES

EG. 0.75" ROUND BAR = M303RD0.750



PURCHASE MATERIAL: AISI 303 SS ROUND BAR
(NOTE: AISI 304/316 NOT ACCEPTABLE)

SPECIFICATION:
ASTM A562

PART NUMBER:
M303RD DDD

WHERE "D.DDD" = DIAMETER IN INCHES

EG. 0.75" ROUND BAR = M303RD0.750

RECEIVED
R 2010-02-02
JW

B	REFORMAT DWG. AND SPEC'S (ZN DB-1), REF PAR 08-020A	CP	10/01/05
A	NEW ISSUE	DS	01/12/20
REV.	DESCRIPTION	BY	DATE
DESIGN	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		
DRAWN	DRAWING NO.		REV. B
CHECKED	M303RD		SHEET 1 OF 1
MFG. APPR.	TITLE		SCALE
APPROVED	303 ROUND BAR		NTS
DE APPR.			COPYRIGHT © 2001 BY DART AEROSPACE LTD
DATE	10/01/05		ALL INFORMATION CONTAINED HEREIN IS UNPUBLISHED PROPRIETARY INFORMATION OF DART AEROSPACE LTD. IT IS TO BE KEPT CONFIDENTIAL AND IS NOT TO BE COPIED OR DISCLOSED EXCEPT AS AUTHORIZED IN WRITING BY DART AEROSPACE LTD.

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8

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M303R0.500
 DATE: 18/11/01

PO / BATCH NO.: P0041482/5123401

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 36.25 ft
 QUANTITY INSPECTED: 36.25 ft
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.500"
 THICKNESS RECEIVED: 0.500"
 SHEET SIZE ORDERED: —
 SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)		COMMENTS
	Y	N	
SURFACE DAMAGE	Y	N	
CORRECT FINISH	Y	N	
CORROSION	Y	N	
CORRECT GRAIN DIRECTION	Y	N	
CORRECT MATERIAL PER M-DRAWING	Y	N	ASTM A582
CORRECT THICKNESS	Y	N	
PHOTO REQUIRED	Y	N	
CORRECT REF # TO LINK CERT	Y	N	H7.8918/936
CORRECT MATERIAL IDENTIFICATION	Y	N	
CORRECT M# ON THE MATERIAL	Y	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>A</u>	SIGNED OFF BY: _____
DATE: <u>18/11/01</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

8519

RSS-1303



North American Stainless Canada Inc.
740 Imperial Road North
Guelph, ON N1K1Z3
Canada

METALLURGICAL TEST REPORT

52380 20704
6870 Highway 42 East
Ghent, KY 41045-9615
(502) 347-6000

Certificate: 449242 4

Date: 9/27/2018 Page: 1

Customer: 007205 001

Steel: 303

Your Order: 5400400780

NAS Order: PN 0096303 01

Heat Treat Code: 48,998

Finish: CD

Corrosion:

Red Ratio: 69.4 :1

PRODUCT DESCRIPTION:

Round Bar, Annealed, Cold Draw
UNS 30300, ASTM A582/17 EN 10204 3.1, ASTM A484/18
AMS 5640V TYPE 1, QQS-764B CONDITION A
SOLUTION ANNEAL TEMP 1900F MIN, ASTM F899/12B

REMARKS:

COMPLIES W/REQUIREMENTS OF DFAR 252.225-7009 EU DIRECTIVE
2011/65/EU. ROHS. EAF+AOD+CC. NO WELD REPAIR. MELTED AND MFG
IN USA FREE FROM MERCURY AND LOW MELTING ALLOY CONTAMINATION

Product Id	Skid #	Diameter	Size	Weight	Length	Mark	Pieces	Commodity Code
BJ7983 2		1.0000		1,199	144.00	39	1	

ANAB, ISO/IEC 17025, Certificate# L2323
Chemical Analysis per ASTM A751/14a

NAS-Heat	CM	C %	CO %	CR %	CU %	MN %	MO %	N %	NI %	P %
923K	US	.046	.12	17.18	.37	1.88	.324	.028	8.57	.033
	S %	SI %								
	.3250	.52								

MECHANICAL PROPERTIES

Product Id	1 o c R L	d i r No.	HB KSI	.2YS KSI	UTS KSI	RA %	Elong % 4D
BJ7983 2		206.0	79.74	103.10	31.50	21.88	

heat. 923K

IAS hereby certifies that the analysis on this certification is correct. Based upon the results and the accuracy of the test methods used, the material meets the specifications stated. These results relate only to the items tested and this report cannot be reproduced, except in its entirety, without the written approval of NAS.

Technical
Dept. Mgr.

Kris Lark

9/27/2018



North American Stainless Canada Inc.
740 Imperial Road North
Guelph, ON N1K1Z3
Canada

METALLURGICAL TEST REPORT

6870 Highway 42 East
Ghent, KY 41045-9615
(502) 347-6000

Certificate: 449242 5

Date: 9/27/2018 Page: 1

Customer: 007205 001

Steel: 303

Your Order: 5400400780

NAS Order: PN 0096303 01

Heat Treat Code: 48,998

Finish: CD
Corrosion:
Red Ratio: 69.4 :1

PRODUCT DESCRIPTION:

Round Bar, Annealed, Cold Draw
UNS 30300, ASTM A582/17 EN 10204 3.1, ASTM A484/18
AMS 5640V TYPE 1, QQS-764B CONDITION A
SOLUTION ANNEAL TEMP 1900F MIN, ASTM F899/12B

REMARKS:

COMPLIES W/REQUIREMENTS OF DFAR 252.225-7009 EU DIRECTIVE
2011/65/EU. RoHS. EAF+AOD+CC. NO WELD REPAIR. MELTED AND MFG
IN USA FREE FROM MERCURY AND LOW MELTING ALLOY CONTAMINATION

Product Id	Skid #	Diameter	Size	Weight	Length	Mark	Pieces	Commodity Code
BJ7983 3		1.0000		1,099	144.00	40	1	

ANAB, ISO/IEC 17025, Certificate# L2323
Chemical Analysis per ASTM A751/14a

NAS Heat	CM	C %	CO %	CR %	CU %	MN %	MO %	N %	NI %	P %
923K	US	.046	.12	17.18	.37	1.88	.324	.028	8.57	.033
		S %	SI %							
		.3250	.52							

MECHANICAL PROPERTIES

Product Id	o d i c r	HB No.	.2YS KSI	UTS KSI	RA %	Elng % 4D
BJ7983 3	R L	206.0	79.74	103.10	31.50	21.88

NAS hereby certifies that the analysis on this certification is correct. Based upon the results and the accuracy of the test methods used, the material meets the specifications stated. These results relate only to the items tested and this report cannot be reproduced, except in its entirety, without the written approval of NAS.

Technical
Dept. Mgr.

KRIS LARK

9/27/2018



North American Stainless Canada Inc.
740 Imperial Road North
Guelph, ON N1K1Z3
Canada

METALLURGICAL TEST REPORT

6870 Highway 42 East
Ghent, KY 41045-9615
(502) 347-6000

Certificate: 449242 6

Date: 9/27/2018 Page: 1

Customer: 007205 001

Steel: 303

Your Order: 5400400780

NAS Order: PN 0096303 01

Heat Treat Code: 48,998

Corrosion:
Red Ratio: 69.4 :1

PRODUCT DESCRIPTION:

Round Bar, Annealed, Cold Draw
UNS 30300, ASTM A582/17 EN 10204 3.1, ASTM A484/18
AMS 5640V TYPE 1, QOS-764B CONDITION A
SOLUTION ANNEAL TEMP 1900F MIN, ASTM F899/12B

REMARKS:

COMPLIES W/REQUIREMENTS OF DFAR 252.225-7009 EU DIRECTIVE
2011/65/EU.RoHS. EAF+AOD+CC. NO WELD REPAIR. MELTED AND MFG
IN USA FREE FROM MERCURY AND LOW MELTING ALLOY CONTAMINATION

Product Id	Skid #	Diameter	Size	Weight	Length	Mark	Pieces	Commodity Code
BJ7983 4		1.0000		1,029	144.00	41	1	

ANAB, ISO/IEC 17025, Certificate# L2323

CHEMICAL ANALYSIS CM(Country of Melt) ES(Spain) US(United States) ZA(South Africa) JP(Japan)						Chemical Analysis per ASTM A751/14a				
NAS Heat	CM	C %	CO %	CR %	CU %	MN %	MO %	N %	NI %	P %
923K	US	.046	.12	17.18	.37	1.88	.324	.028	8.57	.033
	S %	SI %								
	.3250	.52								

MECHANICAL PROPERTIES

Product Id	l o c r	d i r	HB No.	.2YS KSI	UTS KSI	RA %	Elng % 4D
BJ7983 4	R	L	206.0	79.74	103.10	31.50	21.88

NAS hereby certifies that the analysis on this certification is correct. Based upon the results and the accuracy of the test methods used, the material meets the specifications stated. These results relate only to the items tested and this report cannot be reproduced, except in its entirety, without the written approval of NAS.

Technical
Dept. Mgr.

KRIS LARK

9/27/2018



North American Stainless Canada Inc.
740 Imperial Road North
Guelph, ON N1K1Z3
Canada

METALLURGICAL TEST REPORT

6870 Highway 42 East
Ghent, KY 41045-9615
(502) 347-6000

Certificate: 449242 7

Date: 9/27/2018 Page: 1

Customer: 007205 001

Steel: 303

Your Order: 5400400780

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Heat Treat Code: 48,998

Finish: CD
Corrosion:
Red Ratio: 69.4 :1

PRODUCT DESCRIPTION:

Round Bar, Annealed, Cold Draw
UNS 30300, ASTM A582/17 EN 10204 3.1, ASTM A484/18
AMS 5640V TYPE 1, QQS-764B CONDITION A
SOLUTION ANNEAL TEMP 1900F MIN, ASTM F899/12B

REMARKS:

COMPLIES W/REQUIREMENTS OF DFAR 252.225-7009 EU DIRECTIVE
2011/65/EU. RoHS. EAF+AOD+CC. NO WELD REPAIR. MELTED AND MFG
IN USA FREE FROM MERCURY AND LOW MELTING ALLOY CONTAMINATION

Product Id	Skid #	Diameter	Size	Weight	Length	Mark	Pieces	Commodity Code
BJ7983 5		1.0000		1,097	144.00	42	1	
ANAB, ISO/IEC 17025, Certificate# L2323								
Chemical Analysis per ASTM A751/14a								
NAS Heat	CM	C %	CO %	CR %	CU %	MN %	MO %	N %
923K	US	.046	.12	17.18	.37	1.88	.324	.028
		S %	SI %					
		.3250	.52					

MECHANICAL PROPERTIES

Product Id	l o c R	d i r No.	HB KSI	.2YS KSI	UTS KSI	RA %	Elong % 4D
BJ7983 5	R L	206.0	79.74	103.10	31.50	21.88	

IAS hereby certifies that the analysis on this certification is correct. Based upon the results and the accuracy of the test methods used, the material meets the specifications stated. These results relate only to the items tested and this report cannot be reproduced, except in its entirety, without the written approval of NAS.

Technical
Dept. Mgr.

Kris Lark

9/27/2018

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: AISI 303 SS ROUND BAR
(NOTE: AISI 304/316 NOT ACCEPTABLE)



SPECIFICATION:
PART NUMBER:



DIA.

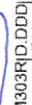
WHERE "D:DDD" = DIAMETER IN INCHES
EG. 0.75" ROUND BAR = M303R0.750

NOTE: AISI 304/316 NOT ACCEPTABLE)



SPECIFICATION:

PART NUMBER:



DIA.

WHERE "D:DDD" = DIAMETER IN INCHES
EG. 0.75" ROUND BAR = M303R0.750

RE: E. R. S. U.
R 2010-02-02

B		REFORMAT DWG. AND SPEC'S (Z/N 108-1)	CP	10/01/05
A		REF PAR 08-000A	DS	01/12/20
REV	NEW ISSUE	DESCRIPTION	BY	DATE
		DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		
DESIGN		DRAWING NO.		REV. B
DRAWN		M303R		SHEET 1 OF 1
CHECKED		APPROVED		SCALE
MFG. APPR.		DE APPR.		NTS
APPROVED		DATE	10/01/05	COPYRIGHT © 2001 BY DART AEROSPACE LTD
				ALL INFORMATION CONTAINED HEREIN IS UNPUBLISHED PROPRIETARY INFORMATION OF DART AEROSPACE LTD. IT IS TO BE KEPT CONFIDENTIAL AND IS NOT TO BE COPIED OR DISCLOSED EXCEPT AS AUTHORIZED IN A WRITTEN AGREEMENT BY DART AEROSPACE LTD.

2

4

5

6

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0

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M303R1.000
 DATE: 18/11/01

PO / BATCH NO.: P0041482/5N23402

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 24.25 ft
 QUANTITY INSPECTED: 24.25 ft
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.00"
 THICKNESS RECEIVED: 1.000"
 SHEET SIZE ORDERED: -
 SHEET SIZE RECEIVED: -

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <u>(N)</u>	
CORRECT FINISH	<u>(Y)</u> N	
CORROSION	Y <u>(N)</u>	
CORRECT GRAIN DIRECTION	<u>(Y)</u> N	
CORRECT MATERIAL PER M-DRAWING	<u>(Y)</u> N	<u>ASTM A582</u>
CORRECT THICKNESS	<u>(Y)</u> N	
PHOTO REQUIRED	Y <u>(N)</u>	
CORRECT REF # TO LINK CERT	<u>(Y)</u> N	<u>HT: 923K</u>
CORRECT MATERIAL IDENTIFICATION	Y <u>(N)</u>	
CORRECT M# ON THE MATERIAL	Y <u>(N)</u>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <u>(N)</u>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <u>(N)</u>	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>AT</u>	SIGNED OFF BY: _____
DATE: <u>18/11/01</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

5761

RSS-34303

51361

17303



INSPECTION CERTIFICATE

CUSTOMER : TA CHEN INTERNATIONAL, INC.
 COMMODITY: Stainless Steel Cold Drawn Round Bar (R)
 CERTIFICATE NO: A1711280262

ORDER NO.: 1060900067/268468
 SPECIFICATION: 303
 DOC NO.:

WALSON LINNA CORP.
 TAIWAN PLANT
 147 WEN-CHEN 4TH ROAD, TAIPEI 11210
 NO. 5-10, SHILOU LIAO, CHEN HSIEH LI,
 KUOHSI DIST TAIPEI CITY 11240, TAIWAN, R.O.C.
 TEL: 886-2-621-0111 FAX: 886-2-621-0334

LC NO: 1108
 SUPPLY CONDITION: CD
 DATE OF ISSUE: 2017/11/28

Heat No	Thick (Dia)	Pcs	Wt	Chemical Composition(wt%)												Mechanical Property					HANDLE NO
				C x100	Si x100	Mn x100	P x1000	S x1000	Ni x100	Cr x100	Mo x100	Cu x100	N x10000	TS N/mm ²	YS N/mm ²	EL %	RA %	HRB	HRC		
Spec	Min	Max																			
6J049	3/4"	69	1254	5.6	27	184	27	328.4	927	1810	11	35	221	710	535	33	46	97	103	UL17165008	
OK397	3/4"	68	1239	5.9	24	193	28	229.4	803	1765	17	74	353	733	603	33	40	95	95	UL17165009	
Total:			2493																		

TOLERANCE: M44

Acc. to ASTM A562-12 Cond.A.

Acc. to ASTM BME 26407 type 1/30-8-7463 chemistry only.

LENGTH TOLERANCE: 0-30

This inspection certificate is issued according to EN 10204 2.2

Remark:

Melted manufactured : Taiwan, Improved machining.
 Solution annealed treatment: Acc. to ASTM A484.

1. We hereby certify that material described herein has been manufactured and tested with satisfactory results in accordance with requirement of the above material specification.
2. We certify that the material is free from mercury and radiation contamination. Qualification No. of Taiwan Atomic Energy Committee: 136
3. The Above Testing Results Relate Only To The Items Tested.
4. No welding repaired

SUPPLY CONDITION:
 A:Annealed
 B:Shot Blasted
 C:As Casted
 D:Flattened/Plan Face
 E:Practitioner Hardening
 F:Rust Roll
 G:Roughened
 H:Cut Edge
 I:Polished
 K:Gold Roll
 P:Flattened
 S:Shaved
 V:BN
 W:Cut
 X:Temper
 CD:Cold Draw
 CG:Centrifuge Ground
 PL:Turned or Peaked

We have the following certification:
 1.ISO9001:2015 Quality Management System
 2.ISO/IEC 17025:2005 Laboratory Management System
 3.IFED & AD2000-Material W0
 4.DNV - LR - ABS Classification Society certification
 5.ISO14001:2004 Environment Management System
 6.GRSAS 16001:2007 & TSGMS Certificates

TEST METHOD :
 CHEMICAL-ASTM E1806, E413, E1066, E1019

SL Keay,
 Quality Assurance Responsible Personnel

Heat: 5J049

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M303 R0.750
 DATE: 10/11/01

PO / BATCH NO.: P0041482/S123403

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 27.75 ft
 QUANTITY INSPECTED: 27.75 ft
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.750"
 THICKNESS RECEIVED: 0.750"
 SHEET SIZE ORDERED: —
 SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)		COMMENTS
	Y	N	
SURFACE DAMAGE	Y	N	
CORRECT FINISH	Y	N	
CORROSION	Y	N	
CORRECT GRAIN DIRECTION	Y	N	
CORRECT MATERIAL PER M-DRAWING	Y	N	ASTM A582
CORRECT THICKNESS	Y	N	
PHOTO REQUIRED	Y	N	
CORRECT REF # TO LINK CERT	Y	N	44-55049
CORRECT MATERIAL IDENTIFICATION	Y	N	
CORRECT M# ON THE MATERIAL	Y	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>AT</u>	SIGNED OFF BY: _____
DATE: <u>10/11/01</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

5141



RAL-1

50917 CA-5648

15420

GLOBAL VIETNAM ALUMINIUM COMPANY LIMITED

Address: MY XUAN B1-CONAC INDUSTRIAL ZONE, MY XUAN TOWN, TAN THANH DISTRICT,
BA RIA VUNG TAU PROVINCE, VIETNAMTel: +84(0)643924954
Fax: +84(0)643924953MILL TEST CERTIFICATE

Date: October 29, 2017

PO number: 17-P-565

Shipping Ref No.: 17-2134

LC No.: DC HMN714345

Date of issue: October 24, 2017

Item Code: 1043003

Die Number: D00004

Alloy & Temper: 6061-T6

Production Description: CUSTOM ALUMINIUM EXTRUSION

Round Bar 1" x 20' 6061-T6

Length (inch): 240

Unit weight (kg/meter): 1.368

Bundle number: 17-P-565-043, 17-P-565-042, 17-P-565-041, 17-P-565-040

Heat Number: SXE171894

Date: 05/10/2017

Applicable Specifications: ASTM B221 STANDARDS

CHEMICAL ANALYSIS: %

Si	Mg	Fe	Cu	Mn	Cr	Zn	Ti	Al	Other		Remark:
									Each	Total	
0.662	0.964	0.232	0.247	0.024	0.082	0.009	0.019	97.664	<0.05	<0.10	03/10/2017

MECHANICAL ANALYSIS:

Ult. Strength (ksi)	Yield Strength (ksi)	Elongation % LN 2"	Remark:
41.7	36.8	12.3	03/10/2017

All profiles, showing material shipped match aluminium alloy as per standard, with chemical analysis to match aluminium alloy standard.

We hereby certify that the item listed have been checked and tested in accordance with the specifications noted and have been found to meet all the applicable requirements. Certifications are kept on file for 36 months from the date of purchase and are available for review upon request, referring to ASTM and the PO number.

Quality Manager



TRUNG TÂM KIỂM NGHIỆM CÔNG TY
TNHH NHÔM TOÀN CẦU VIỆT NAM
GLOBAL VIETNAM ALUMINIUM
CO., LTD TESTING CENTER

heat: SXE 171894

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL 6061-T6/T651/T6510/T6511/T652 ALUMINUM ROUND BAR

SPECIFICATION: QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)

OR ASTM B211 OR ASTM B22

PART NUMBER: M6061-T6RD [DDD]

[DIA.]

WHERE "D, DDD" = DIAMETER IN INCHES
EG. 5/8" ROUND BAR = M6061-T6R0.625

SPECIFICATION:



RELEASED
2009-09-09
JMP

B	REFORMED DWG. ADD B211& B221 SPEC (ZN DB-1)	GP	09-07-13
A	REF P/N 08-2204	DS	01-06-08
REV.	NEW ISSUE	BY	DATE
DESIGN	1	DESCRIPTION	DART AEROSPACE LTD
DRAWN	1	DRAWING NO.	HAWKESBURY, ONTARIO, CANADA
CHECKED	1	REV. B	SHEET 1 OF 1
MFG. APPR.	1	APPROVED	SCALE
APPROVED	1	DATE	DATE
DE APPR.	1	09.07.13	09.07.13

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ALL RIGHTS RESERVED

PRINTED ON 08/09/2009

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M6061R1.000
 DATE: 18/11/01

PO / BATCH NO.: P0041482/5123404

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 20ft
 QUANTITY INSPECTED: 20ft
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.000"
 THICKNESS RECEIVED: 1.00"
 SHEET SIZE ORDERED: —
 SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	(<u>N</u>)	
CORRECT FINISH	(<u>Y</u>)	N	
CORROSION	Y	(<u>N</u>)	
CORRECT GRAIN DIRECTION	(<u>Y</u>)	N	
CORRECT MATERIAL PER M-DRAWING	(<u>Y</u>)	N	<i>ASTM B21</i>
CORRECT THICKNESS	(<u>Y</u>)	N	
PHOTO REQUIRED	Y	(<u>N</u>)	
CORRECT REF # TO LINK CERT	(<u>Y</u>)	N	<i>HT: SXE 171894</i>
CORRECT MATERIAL IDENTIFICATION	Y	(<u>N</u>)	
CORRECT M# ON THE MATERIAL	Y	(<u>N</u>)	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	(<u>N</u>)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	(<u>N</u>)	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>A1</u>	SIGNED OFF BY: _____
DATE: <u>18/11/01</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

CERTIFICATION DU MATERIEL

CLIENT:
SALABERRY-DE-VALLEYFIELD

ACIER OUELLETTE INC DIV.DE

935 BOUL DU HAVRE
SALABERRY-DE-VALLEYFIELD, QUEBEC
QC J6S 5L1

NUMÉRO DE COMMANDE: 14858552 000070

COMMANDÉ DU CLIENT: AC00015081

NUMÉRO DE PIÈCES: 5124

NUMÉRO DE LIVRAISON: 803622741 000010

NUMÉRO D'ARTICLE: 160001009

DESCRIPTION INVENTAIRE RD EXT 6061 T6511 1.125 X 144

DESCRIPTION ARTICLE FINIS:ALUM Barre RD EXT 6061 T6511
1.125po X 144po

NUMERO (S) DE COULEE

BRAME / BOBINE / TIN (le cas échéant)

z00238076

CERTIFICATION

Un sondage de nos sources matérielles a indiqué que ni le mercure ni des substances radioactives ne sont introduits dans leurs produits ni ne sont utilisés dans aucun de leurs procédés. Alors que nous ne faisons aucun test indépendant pour le mercure ou la radiation, il n'y a rien dans le système

Ce document certifie que le matériel décrit ci-dessus a été expédié conformément à votre commande. Le producteur du matériel a certifié à qu'il a été produit conformément aux spécifications suivantes:

ASTM B221

04/10/2018

Thomas Endres
Vice-président - Approvisionnement

5124

50587

15081

Best in
Class

CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

CUSTOMER PO NUMBER:		CUSTOMER PART NUMBER:		PRODUCT DESCRIPTION:			
4500875969-1		160001009/EAST		RECISION ROD 1.125+/-0.005			
ORDER NUMBER:	LINE ITEM:	SHIP DATE:		LOT NUMBER:	ALLOY:	TEMPER:	
6051071	001	03/30/2018		Z00238076	6061	T6511B	
WEIGHT SHIPPED:	QUANTITY:	B/L NUMBER:		DIAM/DAF/THKNS:	WIDTH:	LENGTH:	
1024.000 LB	73.000 PCS	622323				12.000 FT	

Actual Physical Properties

REFERENCE	DASH#	SAMPLE#	UTS (KSI)	YTS (KSI)	ELONG%	HARDNESS	CONDUCT.	BEND
Z00238076	0001	0001	49.2	46.4	16.1	RE	93	N/A
Z00238076	0001	0002	49.0	46.2	16.2	RE	93	N/A
Z00238076	0001	0003	48.7	45.8	16.0	RE	93	N/A
Z00238076	0001	0004	49.3	46.5	16.3	RE	92	N/A

Chemical Composition (wt%), Aluminum Remainder

LIMITS	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Bi	Zr	Ea	Tot
Maximum	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	NA	NA	NA	0.05	0.15
Minimum	0.40	0.00	0.15	0.00	0.80	0.04	0.00	0.00	NA	NA	NA	0.00	0.00
108385	.75	.25	.29	.13	.86	.09	.13	.02	.00	.00	.00	.01	.03

Applicable Requirements:

PER ASTM-B221-14, STENCILED ASME-SB221 2009 SECT II PER AMS-QQ-A-200/8A UNS# A96061
 MEETS ALL SPECIFICATION REQUIREMENTS FOR 6061-T6511/T6 ELEVATED MINIMUM MECHANICAL
 PROPERTIES AS FOLLOWS: UTS = 42.0 KSI MIN YIELD = 38.0 KSI MIN ELONGATION = 10.0% MIN

Miscellaneous Notes

MANUFACTURED IN USA MELTED IN USA
 MERCURY IS NOT A NORMAL BACKGROUND ELEMENT IN ALUMINUM ALLOYS. NEITHER MERCURY NOR ANY
 OF ITS COMPOUNDS ARE UTILIZED BY KAISER ALUMINUM IN THE MANUFACTURE OF THIS MATERIAL.

CERTIFICATION

Kaiser Aluminum Fabricated Products, LLC hereby certifies that metal shipped under this order has been
 inspected and tested and found in conformance with applicable specifications forming a part of the
 description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on
 Kaiser's general terms and conditions of sale. Test reports are on file, subject to examination.

Aimee L. Macnowski, Quality & Technology Manager

Plant Serial: 00328214
 Order Number: 6051071

Line Item: 001

that: Z00238076

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 6061-T6/T651/T651N/T62 ALUMINUM ROUND BAR
SPECIFICATION: QQ-A-225B OR AMS-QQA-225B (OR AMS 4117/4128/415/416)
OR QQ-A-20018 OR AMS-QQA-20018 (OR AMS 4160)
OR ASTM B211 OR ASTM B221

PART NUMBER: M6061T6RID,DDD
| Dia. |
WHERE "D,DDD" = DIAMETER IN INCHES

EG. 5/8" ROUND BAR = M6061T6R0.625

RELEASED
R 2009-09-09
MAP

B	REFORMAT 2009, ADD B211& B221 SPEC [ZN D8-1]. REF PART # 030A	CP 09 07 13
A	NEW ISSUE	DS 01 06 00
REV.	DESCRIPTION	BY DATE
DESIGN	<i>[Signature]</i>	DART AEROSPACE LTD
DRAWN	<i>[Signature]</i>	HAWKSBURY, ONTARIO, CANADA
CHECKED	<i>[Signature]</i>	REV. B
MFG. APPR.	<i>[Signature]</i>	SHEET 1 OF 1
APPROVED	<i>[Signature]</i>	SCALE
DE APPR	<i>[Signature]</i>	NTS
DATE	09.07.13	• COPYRIGHT © 2001 BY DART AEROSPACE LTD All rights reserved. No part of this drawing may be reproduced without the express written consent of DART Aerospace Ltd.

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M606176R1.1NS
 DATE: 18/11/01

PO / BATCH NO.: P0041482/5123405

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 244
 QUANTITY INSPECTED: 244
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.125"
 THICKNESS RECEIVED: 1.125"
 SHEET SIZE ORDERED: —
 SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)		COMMENTS
	Y	N	
SURFACE DAMAGE	<u>Y</u>	<u>N</u>	
CORRECT FINISH	<u>Y</u>	<u>N</u>	
CORROSION	<u>Y</u>	<u>N</u>	
CORRECT GRAIN DIRECTION	<u>Y</u>	<u>N</u>	
CORRECT MATERIAL PER M-DRAWING	<u>Y</u>	<u>N</u>	<u>ASTM B241</u>
CORRECT THICKNESS	<u>Y</u>	<u>N</u>	
PHOTO REQUIRED	<u>Y</u>	<u>N</u>	
CORRECT REF # TO LINK CERT	<u>Y</u>	<u>N</u>	<u>HT Z00238076</u>
CORRECT MATERIAL IDENTIFICATION	<u>Y</u>	<u>N</u>	
CORRECT M# ON THE MATERIAL	<u>Y</u>	<u>N</u>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<u>Y</u>	<u>N</u>	
DOES THIS REQUIRE AN EXTRUSION REPORT	<u>Y</u>	<u>N</u>	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>AT</u>	SIGNED OFF BY: _____
DATE: <u>18/11/01</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

5119

RAL-112

TRA-3365

52211



GVA
Global Vietnam
Aluminium Co., Ltd.

GLOBAL VIETNAM ALUMINIUM COMPANY LIMITED

Address: MY XUAN B1-CONAC INDUSTRIAL ZONE, MY XUAN TOWN, TAN THanh DISTRICT,
BA RIA VUNG TAU PROVINCE, VIET NAM

Tel: +84(0)643924954

Fax: +84(0)643924953

MILL TEST CERTIFICATE

Date: May 21th, 2018

PO number: P-18198

Shipping Ref No.: 18-0959

LC No.: DC HMN811713

Date of issue: May 10, 2018

Item Code: 1065900

Die Number: D00186

Alloy & Temper: 6061-T6

Production Description: ALUMINIUM EXTRUDED PROFILES

Round Bar 1-1/2" x 20' 6061-T6 D00186

Length (inch): 240

Bundle number: P-18198-067

Heat Number: SXF180601

Date: 24/04/2018

Applicable Specifications: ASTM B221 STANDARDS

CHEMICAL ANALYSIS: %

Si	Mg	Fe	Cu	Mn	Cr	Zn	Ti	Al	Other		Remark:
									EACH	TOTAL	
0.654	0.984	0.249	0.265	0.024	0.079	0.010	0.019	97.623	<0.05	<0.10	21/04/2018

MECHANICAL ANALYSIS:

Ult. Strength (ksi)	Yield Strength (ksi)	Elongation % LN 2"	Remark:
39.6	35.3	10.4	21/04/2018

All profiles, showing material shipped match aluminium alloy as per standard, with chemical analysis to match aluminium alloy standard.

We hereby certify that the item listed have been checked and tested in accordance with the specifications noted and have been found to meet all the applicable requirements. Certifications are kept on file for 36 months from the date of purchase and are available for review upon request, referring to ASTM and the PO number.

Quality Manager



TRUNG TÂM KIỂM NGHIỆM CÔNG TY
TẬP ĐOÀN NHÔM TOÀN CẦU VIỆT NAM
GLOBAL VIETNAM ALUMINIUM
CO., LTD TESTING CENTER

heat: SXF 180601

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: M6061-T6/T651/T6510/T651/T62 ALUMINUM ROUND BAR

SPECIFICATION:
QQ-A-2251B OR AMS-QQA-2251B (OR AMS 4117/4/128/4/115/4116)
OR QQ-A-2001B OR AMS-QQA-2001B (OR AMS 4160)

OR ASTM B211 OR ASTM B221

PART NUMBER:
M6061T6R[D.DDD]
[DIA]

WHERE "D.DDD" = DIAMETER IN INCHES
EG. 5/8" ROUND BAR = M6061T6R0.625



RELEASED
2009-09-09
JW

REFORMAT DRNG ADD B211& B221 SPEC (ZN D8-1)		CP	09-07-13
REF PAR	08-030A	DS	01-06-08
A	NEW ISSUE	BY	DATE
REV.	DESCRIPTION		
DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKE SEBURY, ONTARIO, CANADA	
CHECKED		REV. B	
MFG. APPR.		SHEET 1 OF 1	
APPROVED		SCALE	
DE APPR.		NTS	
DATE	09.07.13	6061-T6 ROUND BAR	
		COPYRIGHT © 2009 BY DART AEROSPACE LTD NOT TO BE COPIED OR REPRODUCED IN WHOLE OR IN PART Without THE WRITTEN CONSENT OF DART AEROSPACE LTD	

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M606176R1.500
 DATE: 18/11/01

PO / BATCH NO.: P0041482/S123406

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 15ft
 QUANTITY INSPECTED: 15ft
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.500"
 THICKNESS RECEIVED: 1.500"
 SHEET SIZE ORDERED: —
 SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	(N)	
CORRECT FINISH	(Y)	N	
CORROSION	Y	(N)	
CORRECT GRAIN DIRECTION	(Y)	N	
CORRECT MATERIAL PER M-DRAWING	(Y)	N	<i>ASTM B221</i>
CORRECT THICKNESS	(Y)	N	
PHOTO REQUIRED	Y	(N)	
CORRECT REF # TO LINK CERT	(Y)	N	<i>HT-SXF180601</i>
CORRECT MATERIAL IDENTIFICATION	Y	(N)	
CORRECT M# ON THE MATERIAL	Y	(N)	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	(N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	(N)	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>AJ</u>	SIGNED OFF BY: _____
DATE: <u>18/11/01</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

2500

FAL-13

52225

19986


LB ALUMINIUM BERHAD
 (138535-V)


ALUMINIUM EXTRUSION

MILL CERTIFICATE

CUSTOMER :	SECTION NO.:	DATE :
	PE01419MF06100	Apr-25-2018
SALES ORDER NO.:	WORK ORDER:	ALLOY:
1872474	814346	6061-T6511
PRESS NO.:	EXTRUSION DATE:	CERTIFICATE NO.:
3300	Apr-20-2018	CN1805548
CUSTOMER PO NO.:		
P207815		

Section Sketch :

3"

76.20

14

9.52

CHEMICAL COMPOSITION										
Composition	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Al	Analysis Ref.
Min	0.40	0.00	0.15	0.00	0.80	0.04	0.00	0.00	Remainder	85186
Max	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15		
Actual	0.679	0.146	0.261	0.046	1.002	0.076	0.005	0.011		Dec-30-2017

Compliance with ASTM B221M-07

We hereby certify that the material covered by this report has been verified or tested according to the seller standard sampling method or the requirements of any specifications or requirements described herein, and that sample representative of the material met the composition limits. Also, note that mercury is not a normal contaminant in aluminium alloys. Neither mercury nor any of its compounds are used in the manufacture of our extrusion. This certificate conforms to 3.1, EN 10204.

** This certificate of Analysis has been produced electronically and is valid without signature **

Lot 11, Jalan Perusahaan 1, Kawasan Perusahaan Beranang, 43700 Beranang, Selangor Darul Ehsan, Malaysia.

Tel: 603-8725 8822 (15 Lines) Fax: 603-8725 8828 (General), 8725 8833 (Sales), 8725 8866 (Export)

Enquiry@lbalum.com.my www.lbalum.com

heat: CN1805548

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR
SPECIFICATION: QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 5117/4128/4115/4116)
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)
OR ASTM B211 OR ~~ASTM B221~~



PART NUMBER:

M6061T6B	T	TTT	X	WWWWWW
		THICK		WIDTH

WHERE "T,TTT" = THICKNESS IN INCHES
"WWWWWW" = WIDTH IN INCHES

E.G. 1.0" X 12.0" BAR = M6061T6B1.000X12.000

RELEASED
R 2009-09-02
[Signature]

B	REMOVE QQ-A-250V1 OPTION REFORMAT NOTES ADD AS1M B211B221 (ZN D7-1)	CP	09/07/13
A	NEW ISSUE	DS	01/06/08
REV.	DESCRIPTION	BY	DATE
DESIGN	DS	DART AEROSPACE LTD	
DRAWN	<i>AS</i>	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>AS</i>	DRAWING NO.	REV. B
MFG. APPR.		M6061T6B	SHEET 1 OF 1
APPROVED		TITLE	SCALE
DE APR.		6061-T6 BAR	NTS
DATE	09.07.13		

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IT MAY NOT BE REPRODUCED, IN WHOLE OR IN PART, OR USED IN ANY MANNER

WITHOUT THE EXPRESS WRITTEN CONSENT OF DART Aerospace Ltd.

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B

C

C

D

D

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M1606176B 1.000x3.000
 DATE: 18/11/01

PO / BATCH NO.: P004482/5123407

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 12 ft
 QUANTITY INSPECTED: 12 ft
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.000"
 THICKNESS RECEIVED: 1.000"
 SHEET SIZE ORDERED: —
 SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)		COMMENTS
	Y	N	
SURFACE DAMAGE	Y	N	
CORRECT FINISH	Y	N	
CORROSION	Y	N	
CORRECT GRAIN DIRECTION	Y	N	
CORRECT MATERIAL PER M-DRAWING	Y	N	<u>ASTM B221</u>
CORRECT THICKNESS	Y	N	
PHOTO REQUIRED	Y	N	
CORRECT REF # TO LINK CERT	Y	N	<u>HT: CN1805548</u>
CORRECT MATERIAL IDENTIFICATION	Y	N	
CORRECT M# ON THE MATERIAL	Y	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>AT</u>	SIGNED OFF BY: _____
DATE: <u>18/11/01</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

2536

FAL-16

52179

CA-50864

16671

Global Vietnam
Aluminium Co.,Ltd

GLOBAL VIETNAM ALUMINIUM COMPANY LIMITED

Address: MY XUAN BI-CONAC INDUSTRIAL ZONE, MY XUAN WARD, PHU MY TOWN,
BA RIA-VUNG TAU PROVINCE, VIETNAM

Tel: +84(0)643924954
Fax: +84(0)643924953

MILL TEST CERTIFICATE

Date: July 22th, 2018

PO number: P-18239

Shipping Ref No.: 18-1749

LC No.: DC HMN812691

Date of issue: July 18, 2018

Item Code: 1062500

Die Number: D00128

Alloy & Temper: 6061-T6

Production Description: ALUMINIUM EXTRUDED PROFILES

Flat Bar 1" x 6" x 144" 6061-T6 D00128

Length (inch): 144

Bundle number: P-18239-216

Heat Number: SXA180811

Date: 03/07/2018

Applicable Specifications: ASTM B221 STANDARDS

CHEMICAL ANALYSIS: %

Si	Mg	Fe	Cu	Mn	Cr	Zn	Ti	Al	Other		Remark:
									Each	Total	
0.653	0.988	0.218	0.242	0.015	0.056	0.012	0.021	97.687	<0.05	<0.10	30/06/2018

MECHANICAL ANALYSIS:

Ult. Strength (ksi)	Yield Strength (ksi)	Elongation % LN 2"	Remark:
41.79	36.55	10.8	30/06/2018

All profiles, showing material shipped match aluminium alloy as per standard, with chemical analysis to match aluminium alloy standard.

We hereby certify that the item listed have been checked and tested in accordance with the specifications noted and have been found to meet all the applicable requirements. Certifications are kept on file for 36 months from the date of purchase and are available for review upon request, referring to ASTM and the PO number.

Quality Manager



TRUNG TÂM KIỂM NGHIỆM CÔNG TY
TNHH NHÔM TOÀN CẦU VIỆT NAM
GLOBAL VIETNAM ALUMINIUM
CO., LTD TESTING CENTER

Heat: SXA180811

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 6061-T6/T611/T6511/T62 ALUMINUM BAR

SPECIFICATION: QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)
OR ASTM B211 OR ASTM B221



PART NUMBER:

M6061T6B	T	TTT	X	W	W	W
	THICK			WIDTH		

WHERE "T" = THICKNESS IN INCHES
"W" = WIDTH IN INCHES

E.G. 1.0" X 12.0" BAR = M6061T6B1.000X12.000

RELEASED
2009-05-02
JW

B	REMOVE DD-A-25011 OPTION, REFORMAT NOTES ADD	CP	09 07 13
A	NEW ISSUE	DS	01 06 00
REV	DESCRIPTION	BY	DATE
DESIGN	DS	DART AEROSPACE LTD	
DRAWN	97	HAWKESBURY, ONTARIO, CANADA	
CHECKED	AJS	REV. B	
MFG. APPR.		SHEET 1 OF 1	
APPROVED		SCALE	NTS
DE APPR			
DATE	09.07.13		

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PRINTED ON 05/02/2009

BY DART AEROSPACE LTD

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M6061T6B1.000X06.000
 DATE: 18/11/01

PO / BATCH NO.: P0041482/S123777

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 36 ft
 QUANTITY INSPECTED: 36 ft
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.000 "
 THICKNESS RECEIVED: 1.000 "
 SHEET SIZE ORDERED: -
 SHEET SIZE RECEIVED: -

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	<u>Y</u> <u>N</u>	
CORRECT FINISH	<u>Y</u> <u>N</u>	
CORROSION	<u>Y</u> <u>N</u>	
CORRECT GRAIN DIRECTION	<u>Y</u> <u>N</u>	
CORRECT MATERIAL PER M-DRAWING	<u>Y</u> <u>N</u>	<u>ASTM B 221</u>
CORRECT THICKNESS	<u>Y</u> <u>N</u>	
PHOTO REQUIRED	<u>Y</u> <u>N</u>	
CORRECT REF # TO LINK CERT	<u>Y</u> <u>N</u>	<u>LT: SXA 180811</u>
CORRECT MATERIAL IDENTIFICATION	<u>Y</u> <u>N</u>	
CORRECT M# ON THE MATERIAL	<u>Y</u> <u>N</u>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<u>Y</u> <u>N</u>	
DOES THIS REQUIRE AN EXTRUSION REPORT	<u>Y</u> <u>N</u>	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>AT</u>	SIGNED OFF BY: _____
DATE: <u>18/11/01</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

1793

CAL-58

51382

TRA-2917

BON DE LIVRAISON

VENDU À
ACIERS TRANSBEC (1997) LTEE
4054, BOUL. LE CORBUSIER
#201
LAVAL, QC
H7L 5R2
NO CLIENT: 3693

LIVRÉ À
ACIER OUELLETTE
22, BOUL. J-F KENNEDY
ST-JÉRÔME, QC J7Y 4B6
NO CLIENT: L-3693-3

NO ITEM	NO DE FILIÈRE	NO PIÈCE CLIENT	DESCRIPTION DU MATERIEL / REMARQUE	LONGUEUR	FINITION	COMMANDE CLIENT NO PIÈCES X MILLES	AVENIR NO PIÈCES X MILLES	MOT CLEFS NO PIÈCES	EN LIVRAISON NO PIÈCES X MILLES	%	OK	
31	SA00504		TIGE CARREE 5/8" 6061/T6	6096mm	NATUREL MILL	121 600	0 0	100655-31-1A1	383897	158 654	100.0%	<input type="checkbox"/>
							Sous-Total:	1	158	654		

3 MILL TEST + CERT. CONFORMITÉ

Mill Test (Tensile Properties of Aluminum)

Test Date.: 26/Sep/16

Order No.	Alloy	Temper	Yield (ksi)	Ultimate Tensile (ksi)	Total Elongation (%)	Hardness (Rockwell E)	Conductivity %	Report No.
100655-31-1A1	6061	T6	38.2	42.6	15.80	91.70		6178

Certificate of Compliance (Certificat de conformité)

Normes: (ANSI H35.1-1997) & (ASTM B221)

Order No. Hardness (Webster) Cast No. CAST CHEMICAL COMPOSITION:
#1 #2

100655-31-1A1	15	15	34021	97.97	Al	Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Ti	Ga	V	B	Zr	Bi	Pb	Sn	Sr	Co
					0.58	0.21	0.20	0.08	0.86	0.05	0.00	0.01	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

AVISER SANS FAUTE JOCELYN NADEAU 24 HEURES AVANT LA LIVRAISON POUR CONFIRMER AVEC LE CLIENT
ATT. EMBALLAGE (POUR ACIER PICARD VARENNESE SEULEMENT): DIMENSIONS MAXIMALES DES BUNDLES 22" x 15"
ATT. PACKING (FOR ACIER PICARD VARENNESE ONLY): BUNDLES MAXIMUM DIMENSIONS 22" x 15"

TOTAL EN LIVRAISON: 2369 13957

25 J FK

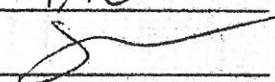
heat: 34021

SIGNATURE

SIGNATURE
CLIENT:

VÉRIFICATION DE MATERIEL

DATE: 30/09/16

VÉRIFIÉ PAR: 

DATE: 29 SEP. 2016 25

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: M6061-T6/T651/T651/T62 ALUMINUM BAR

SPECIFICATION: QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4129/4115/4116)
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)
OR ASTM B21 OR (ASTM B22)



PART NUMBER:

M6061T6B	T.TTT	X	WW.WWWWW
	THICK	WIDTH	

WHERE "T.TTT" = THICKNESS IN INCHES
"WW.WWWWW" = WIDTH IN INCHES

E.G. 1.0" X 12.0" BAR = M6061T6B1.000X12.000

RELEASED
2009-05-02
MP

B	REMOVE QQ-A-250/1 OPTION, REFORMAT NOTES, ADD ASTM B21(B22) (ZN D7-1)	CP	09/07/13
A	NEW ISSUE	DS	01/06/00
REV.	DESCRIPTION	BY	DATE
DESIGN	DS	DART AEROSPACE LTD	
DRAWN	<i>AS</i>	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>AS</i>	REV. B	
MFG. APPR.		DRAWING NO.	
APPROVED		M6061T6B	SHEET 1 OF 1
DE APPR.		TITLE	SCALE
DATE	09.07.13	6061-T6 BAR	NTS

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MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M606176B0625X00625
 DATE: 18/11/01

PO / BATCH NO.: P0041482/5123408

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 124
 QUANTITY INSPECTED: 125
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.625"
 THICKNESS RECEIVED: 0.625"
 SHEET SIZE ORDERED: —
 SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	(N)	
CORRECT FINISH	(Y)	N	
CORROSION	Y	(N)	
CORRECT GRAIN DIRECTION	(Y)	N	
CORRECT MATERIAL PER M-DRAWING	(Y)	N	ASTM B221
CORRECT THICKNESS	(Y)	N	
PHOTO REQUIRED	Y	(N)	
CORRECT REF # TO LINK CERT	(Y)	N	H7: 34021
CORRECT MATERIAL IDENTIFICATION	Y	(N)	
CORRECT M# ON THE MATERIAL	Y	(N)	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	(N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	(N)	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>A</u>	SIGNED OFF BY: _____
DATE: <u>18/11/01</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

1743

CAL-012

51861

18731

MILL TEST

BILL TO	CERT CODE:	DIE NUMBER		DATE OF SHIPMENT	
	9	S 4770		Feb/22/2018	
SHIP TO	CUSTOMER PO C75426	ALLOY 6061	TEMPER T6511	SALESMAN PETER BASHMAKOV	
SO DESCRIPTION 2.5" SQ	CUSTOMER PART NUMBER V823601 ✓	PART DESCRIPTION 2.5" SQ			

LER NO. MANIFEST NO.

214399 — 6 386480

MADE IN CANADA

CERTIFICATION
ASTM B221-14 - AMS QQA 200/8

SPECIFICATION
Samuel stnd shapes

R046261

Mechanical Properties

Lot	Alloy	Test Date	Ultimate Tensile	Yield Strength	Percent	Hardness	Conductivity
			Strength (KSI)	(KSI)	Elongation	Rockwell F	
A.11	6061	Feb/15/2018	42.00	39.20	9.80	85.8,86.1,86.4	

Chemical Composition

Cast Number	Lot	Alloy	Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Tl	Ga	V	B	Zr	Bi	Pb	Sn	Sr	Co	Al	Other
39334	A.11	6061	0.54	0.203	0.2	0.0599	0.868	0.059	0	0.0109	0.0221	0	0	0	0	0	0	0	0	0	0	

We certify that the following extrusions have been quality inspected/tested and conforms to required dimensional and temper specifications.



Tulsiram Mohabir
Quality Control Manager



Heat: 39334

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 6061-T6/T651/T6510/T62 ALUMINUM BAR

SPECIFICATION: QQ-A-225/8 (OR AMS-QQ-A-225/8 (OR AMS 4177/4128/4115/4116))
OR QQ-A-200/8 (OR AMS-QQ-A-200/8 (OR AMS 4160))
OR ASTM B21 (OR ASTM B221)

△

PART NUMBER:

M6061T6B	T	TTT	X	WW.WWW
		THICK	WIDTH	

WHERE "TTT" = THICKNESS IN INCHES

"WW.WWW" = WIDTH IN INCHES

E.G. 1.0" X 12.0" BAR = M6061T6B1.000X12.000

RELEASED
2009-05-01
M

B	REMOVE (Q4-7501) OPTION REFORMAT NOTES ADD	CP	09.07.13
A	NEW ISSUE	DS	01.06.08
REV.	DESCRIPTION	BY	DATE
DESIGN	DS	DART AEROSPACE LTD	
DRAWN	<i>AS</i>	DRAWING NO.	HAWKESBURY, ONTARIO, CANADA
CHECKED	<i>AS</i>	REV. B	SHEET 1 OF 1
MFG. APPR.	<i>AS</i>	6061T6B	SCALE
APPROVED	<i>AS</i>	TITLE	NTS
DE APPR.	<i>AS</i>	6061-T6 BAR	COPYRIGHT © 2001 BY DART AEROSPACE LTD
DATE	09.07.13		ALL DRAWINGS ARE THE PROPERTY OF DART AEROSPACE LTD. AND ARE THE CONFIDENTIALITY OF DART AEROSPACE LTD. NO PART OF THIS DRAWING MAY BE COPIED, REPRODUCED, OR TRANSFERRED WITHOUT THE WRITTEN CONSENT OF DART AEROSPACE LTD.

8 7 6 5 4 3 2 1

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MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M6061 T6B 2.500x2.500
 DATE: 10/11/01

PO / BATCH NO.: P0041482/5123409

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 64t
 QUANTITY INSPECTED: 64t
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 2.500"
 THICKNESS RECEIVED: 2.500"
 SHEET SIZE ORDERED: —
 SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <u>(N)</u>	
CORRECT FINISH	<u>(Y)</u> N	
CORROSION	Y <u>(N)</u>	
CORRECT GRAIN DIRECTION	<u>(Y)</u> N	
CORRECT MATERIAL PER M-DRAWING	<u>(Y)</u> N	<u>ASTM B21</u>
CORRECT THICKNESS	<u>(Y)</u> N	
PHOTO REQUIRED	Y <u>(N)</u>	
CORRECT REF # TO LINK CERT	<u>(Y)</u> N	<u>MT: 39334</u>
CORRECT MATERIAL IDENTIFICATION	Y <u>(N)</u>	
CORRECT M# ON THE MATERIAL	Y <u>(N)</u>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <u>(N)</u>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <u>(N)</u>	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>A</u>	SIGNED OFF BY: _____
DATE: <u>10/11/01</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

CERTIFICATION DU MATÉRIEL

CLIENT:
SALABERRY-DE-VALLEYFIELD

ACIER OUELLETTE INC DIV.DE

935 BOUL DU HAVRE
SALABERRY-DE-VALLEYFIELD, QUEBEC
QC J6S 5L1

NUMÉRO DE COMMANDE: 15036615 000020

COMMANDE DU CLIENT: ac00019994 20

NUMÉRO DE PIÈCES: 2440

NUMÉRO DE LIVRAISON: 803899617 000020

NUMÉRO D'ARTICLE: 160001395

DESCRIPTION INVENTAIRE: FLT EXT 6061 T6511 1.5 X 2 X 144

DESCRIPTION ARTICLE FINIS: ALUM Barre PLTE EXT 6061 T6511

1.5po X 2po X 144po

NUMERO (S) DE COULEÉE

BRAME / BOBINE / TIN (le cas échéant)

17184871A

76763

CERTIFICATION

Un sondage de nos sources matérielles a indiqué que ni le mercure ni des substances radioactives ne sont introduits dans leurs produits ni ne sont utilisés dans aucun de leurs procédés. Alors que nous ne faisons aucun test indépendant pour le mercure ou la radiation, il n'y a rien dans le système
qui pourrait entraîner la contamination de l'un ou l'autre type.

Ce document certifie que le matériel décrit ci-dessus a été expédié conformément à votre commande. Le producteur du matériel a certifié à
qu'il a été produit conformément aux spécifications suivantes:

ASTM B221

09/26/2018



Thomas Endres

Vice-président - Approvisionnement

2440
FAL-1122

19994
52234

Material Test Report

Manifest: 717456

Ticket:
1755539

Our Order: 882322 - 1 Cust P.O.: 4500853606

Die: ES05978 Part: 160001395

Alloy Temper: 6061 T6511 Description: 1.500 x 2.000

Print Date: 1/31/18

Chemical Composition Range

6061	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Other Each	Other Total
Min	0.40		0.15		0.8	0.04				
Max	0.8	0.7	0.40	0.15	1.2	0.35	0.25	0.15	0.05	0.15

Mechanical Properties

Strength ksi

<u>Sample ID</u>	<u>Cast #</u>	<u>Lot #</u>	<u>Test Date</u>	<u>Ultimate Tensile</u>	<u>Yield 2% offset</u>	<u>Elongation 2" gage length</u>
76763	17184871A	A11	1/14/18	45.50	41.74	17.0

Applicable Specifications: ASTMB221-14 AMS-QQ-A200/8A

Country of Origin: ONTARIO, CANADA

Can Art Aluminum Extrusion Inc. certifies that materials shipped under this order have been inspected and tested in accordance with Aluminum Association and agreed upon customer specifications. Can Art assumes no liability for additional costs which may be incurred during the customer's manufacture and sale of its products, and is subject only to the replacement of any materials not within agreed upon specifications provided written notification is received by Can Art within 30 days from the date of shipment.

Heat: 17184871A



Evan Eng, Quality Assurance Manager

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL **6061-T6/T6511/T6511-T62** ALUMINUM BAR

SPECIFICATION: QQ-A-225/8 OR AMS-QQA-225/8 (OR AMS 4117/4/128/4/115/4/16)
OR QQ-A-209/8 OR AMS-QQA-209/8 (OR AMS 4160)
OR ASTM B211 OR **ASTM B22**



PART NUMBER:

M6061T6B	T. TTT	X	W.W.WWW
	THICK		WIDTH

WHERE "T.TTT" = THICKNESS IN INCHES

"W.W.WWW" = WIDTH IN INCHES

E.G. 1.0" X 12.0" BAR = M6061T6B1.000X12.000

RELEASED
R 2009-08-02
MM

B	REMOVE QQ-A-225/11 OPTION, REFORMAT NOTES, ADD	CP	09-07-13
A	NEW ISSUE	DS	01-06-08
REV	DESCRIPTION	BY	DATE
DESIGN	DS	DART AEROSPACE LTD	
DRAWN	<i>g</i>	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>AS</i>	DRAWING NO	REV. B
MFG. APPR.		M6061T6B	SHEET 1 OF 1
APPROVED	<i>AS</i>	TITLE	SCALE
DE APPROV	<i>AS</i>	6061-T6 BAR	NTS
DATE	09-07-13	COPYRIGHT © 2001 BY DART AEROSPACE LTD	
		ALL DRAWINGS ARE THE PROPERTY OF DART AEROSPACE LTD. THEY ARE TO BE KEPT IN A SECURE PLACE AND ARE NOT TO BE COPIED OR DISCLOSED TO UNAUTHORIZED PERSONS.	

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M606176B 1.500x2.000
 DATE: 18/11/01

PO / BATCH NO.: P0041482/5123410

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 12ft
 QUANTITY INSPECTED: 12ft
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.500"
 THICKNESS RECEIVED: 1.500"
 SHEET SIZE ORDERED: —
 SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	N	
CORRECT FINISH	Y	N	
CORROSION	Y	N	
CORRECT GRAIN DIRECTION	Y	N	
CORRECT MATERIAL PER M-DRAWING	Y	N	<i>ASTM B21</i>
CORRECT THICKNESS	Y	N	
PHOTO REQUIRED	Y	N	
CORRECT REF # TO LINK CERT	Y	N	<i>HT:17184871A</i>
CORRECT MATERIAL IDENTIFICATION	Y	N	
CORRECT M# ON THE MATERIAL	Y	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>A</u>	SIGNED OFF BY: _____
DATE: <u>18/11/01</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

2560

FAL-23

18931

CAN ART
ALUMINUM EXTRUSION L.P.

51860

Material Test Report

Manifest: 336848

Ticket:
5585837

Our Order: **883277 - 11** Cust P.O.: C75492
 Die: ES05977 Part: V832381
 Alloy Temper: 6061 T6511 Description: 2.000 x 3.000
 Print Date: 3/5/18

P019083

Chemical Composition Range

6061	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Other Each	Other Total
Min	0.40		0.15		0.8	0.04				
Max	0.8	0.7	0.40	0.15	1.2	0.35	0.25	0.15	0.05	0.15

Mechanical Properties

Strength ksi

Sample ID	Cast #	Lot #	Test Date	Ultimate Tensile	Yield 2% offset	Elongation 2" gage length
77967	<u>18020701B</u>	A11	2/26/18	41.89	39.57	12.3

Applicable Specifications: ASTM B221-14 AMS-QQ-A200/8A

Country of Origin: ONTARIO, CANADA

Can Art Aluminum Extrusion Inc. certifies that materials shipped under this order have been inspected and tested in accordance with Aluminum Association and agreed upon customer specifications. Can Art assumes no liability for additional costs which may be incurred during the customer's manufacture and sale of its products, and is subject only to the replacement of any materials not within agreed upon specifications provided written notification is received by Can Art within 30 days from the date of shipment.


 Evan Eng, Quality Assurance Manager

Heat: 18020701B

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M6061T6B2.000x3.000
 DATE: 18/11/01

PO / BATCH NO.: P0041482/S12341

MATERIAL CERT REC'D: Y
 QUANTITY RECEIVED: 124
 QUANTITY INSPECTED: 124
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 2.00"
 THICKNESS RECEIVED: 2.00"
 SHEET SIZE ORDERED: —
 SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	N	
CORRECT FINISH	Y	N	
CORROSION	Y	N	
CORRECT GRAIN DIRECTION	Y	N	
CORRECT MATERIAL PER M-DRAWING	Y	N	ASTM B21
CORRECT THICKNESS	Y	N	
PHOTO REQUIRED	Y	N	
CORRECT REF # TO LINK CERT	Y	N	H17: 18020701B
CORRECT MATERIAL IDENTIFICATION	Y	N	
CORRECT M# ON THE MATERIAL	Y	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>AT</u>	SIGNED OFF BY: _____
DATE: <u>18/11/01</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

1301

AAL- 1118

51328

04 50159

12928



GLOBAL VIETNAM ALUMINIUM COMPANY LIMITED

Address: MY XUAN B1-CONAC INDUSTRIAL ZONE, MY XUAN TOWN, TAN THANH DISTRICT,
BA RIA VUNG TAU PROVINCE, VIET NAM
Tel: +84(0)643924954
Fax: +84(0)643924953

MILL TEST CERTIFICATE

Date: April 26th, 2018

PO number: P-18057

Shipping Ref No.: 18-0817

LC No.: DC HMN811301

Date of issue: April 10, 2018

Item Code: 1022600

Die Number: D00580

Alloy & Temper: 6061-T6

Production Description: ALUMINIUM EXTRUDED PROFILES

Angle 1.0"x0.125"x 20' 6061-T6 D00580

Length (inch): 240

Bundle number: P-18057-021, P-18057-022

→ Heat Number: SXF180280

Date: 03/03/2018

Applicable Specifications: ASTM B221 STANDARDS

CHEMICAL ANALYSIS: %

) acceptable 9/18/11/1

Si	Mg	Fe	Cu	Mn	Cr	Zn	Ti	Al	Other		Remark:
									EACH	TOTAL	
0.575	0.911	0.228	0.242	0.016	0.100	0.084	0.017	97.741	<0.05	<0.10	28/02/2018

MECHANICAL ANALYSIS:

Ult. Strength (ksi)	Yield Strength (ksi)	Elongation % LN 2"	Remark:
41.6	36.8	10.6	28/02/2018

All profiles, showing material shipped match aluminium alloy as per standard, with chemical analysis to match aluminium alloy standard.

We hereby certify that the item listed have been checked and tested in accordance with the specifications noted and have been found to meet all the applicable requirements. Certifications are kept on file for 36 months from the date of purchase and are available for review upon request, referring to ASTM and the PO number.

Quality Manager



TRUNG TÂM KIỂM NGHIỆM CÔNG TY
TNHH NHÔM TOÀN CẦU VIỆT NAM
GLOBAL VIETNAM ALUMINIUM
CO., LTD TESTING CENTER

heat: SXF180280

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL 6061-T6 T6510/T6511 ALU MINUM ANGLE
PER AMS-QQ-A-200/8

PART NUMBER: M606176A | HHH X WWW | WHERE HHH = HEIGHT
WHERE WWW = THICKNESS
| HEIGHT | THICKNESS

E.G. 0.75" X 0.75" X 0.125" = M6061T6A750XW125

B	PART NUMBER CALL OUT REWRITTEN			A/S	08.03.14
A	NEW ISSUE			MB	08.02.14
REV	DESCRIPTION			BY	DATE
DESIGN	A/S	DART AEROSPACE LTD			
DRAWN	A/S	HAWKESBURY, ONTARIO, CANADA			
CHECKED	LE	DRAWING NO.			
MFG. APPR.	LE	M6061T6A			
APPROVED	LE	TITLE			
DEA APPR.	LE	6061-T6 ANGLE			
DATE	08.03.06	DRAWN BY: CO-OP CAD/3D DESIGNER APPROVED BY: DART AEROSPACE LTD SHEET 1 OF 1 SCALE: NTS			

08.05.17. 1149

3 2 1

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M606176A 1.0000,125
 DATE: 08/11/01

PO / BATCH NO.: P0041482/5123412

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 204
 QUANTITY INSPECTED: 204
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.000"
 THICKNESS RECEIVED: 1.000"
 SHEET SIZE ORDERED: —
 SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	<u>Y</u>	<u>N</u>	
CORRECT FINISH	<u>Y</u>	<u>N</u>	
CORROSION	<u>Y</u>	<u>N</u>	
CORRECT GRAIN DIRECTION	<u>Y</u>	<u>N</u>	
CORRECT MATERIAL PER M-DRAWING	<u>Y</u>	<u>N</u>	
CORRECT THICKNESS	<u>Y</u>	<u>N</u>	
PHOTO REQUIRED	<u>Y</u>	<u>N</u>	
CORRECT REF # TO LINK CERT	<u>Y</u>	<u>N</u>	
CORRECT MATERIAL IDENTIFICATION	<u>Y</u>	<u>N</u>	
CORRECT M# ON THE MATERIAL	<u>Y</u>	<u>N</u>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<u>Y</u>	<u>N</u>	<i>See cert</i>
DOES THIS REQUIRE AN EXTRUSION REPORT	<u>Y</u>	<u>N</u>	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>AT</u>	SIGNED OFF BY: _____
DATE: <u>18/10/01</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

4965

R4140-4H

19685


**NIAGARA
LASALLE
CORPORATION**
1412 150th Street
Hammond IN 46327-1799**CERTIFICATION**

CERTIFICATE	Rev
H189388	2
DATE	
09/20/18	
PAGE	
6	

PURCHASE ORDER B41750

ORDER 980460-1

CUSTOMER ITEM V015422

ITEM 144000240Q04A

GRADE QT4140

SHAPE Round

SIZE 4.0000

SIZE MM 101.6000 MM

LENGTH 20' 0"/24' 0"

LENGTH MM 6096 / 7315.2

 4140/42 VD-CA/AL-TRT QT-HR-STRESS FREE 115K TS 95K YS (.02% 90K) 16% EL 50% R/A SURFACE HBN 269/321 Spec/Rev:
 Spec/Rev: ASME SA193/SA193M GR-B7 Spec/Rev: ASTM A193/A193M-14 GR-B7 Spec/Rev: ~~ASTM A29/A29M-16~~ Spec/Rev: ASTM
 A322-13 Spec/Rev: ASTM A434/A434M-15 CL-BC

HEAT	GRAIN PRACTICE		SOURCE / MELTED				CAST	REDUCTION RATIO		DI
C149271	FINE(5-8)		STEEL DYNAMICS (USA)				BLOOM	11.1:1		5.76
CHEMISTRY										
C	MN	P	S	SI	NI	CR	MO	CU	AL	V
0.400	0.870	.009	.016	0.240	0.210	0.960	.210	.260	.026	.001
N	TE	AS	PB	SE	BI	B	NB			
.008	N/A	N/A	.001	N/A	N/A	.0003	.0010			
MECHANICAL										
JOB	TENSILE		.2% YIELD	ELONG	R.O.F A	HARDNESS	.02% YIELD	SR TEMP		
HS48233	146,472 PSI		124,398 PSI	17.60	54.90	HBN = 311	108,943			
QUENCH & TEMPER										
JOB	MACRO		SURFACE	AUSTENITIZED			TEMPERED		STRESS	
				TEMPERATURE	TIME	QUENCH	TEMPERATURE	TIME	TEMPERATURE	TIME
HS48233	SATISFACTORY	HBN = 311	1650F	3.2 HRS	WATER	1150F	6.1 HRS		STRESS FREE	
HARDENABILITY										
01	02	03	04	05	06	08	10	12	14	16
56	56	56	56	56	56	56	53	49	50	47
56	56	56	56	56	56	56	53	49	50	47
56	56	56	56	56	56	56	53	49	50	47
LOT										
LOT	JOB	WEIGHT (LBS)	PIECES		LOT	JOB	WEIGHT (LBS)	PIECES		
5760048	HS48233	7,735	8							

WE, hereby certify that these goods were produced in compliance with all applicable requirements of sections 6, 7, and 12 of the Fair Labor Standards Act, as amended, and all regulations and orders of the United States Department of Labor issued under section 14 thereof. Material was not exposed to mercury or any metal alloy that is liquid at ambient temperature during processing or while in our possession. No weld repairs performed on the above material.

CERTIFICATE OF TEST

By: *Walter P. Kretzler*

Walter P. Kretzler - Director of Q.A./Chief Metallurgist

Heat: C149271

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL :

AISI 4140 ROUND BAR
MINIMUM ROCKWELL C = 20 RC
MAXIMUM ROCKWELL C = 38 RC

SPECIFICATION:

ASTM A29, AMS 6349, AMS 6382, AMS 6529
WHERE "D,DDD" = DIAMETER IN INCHES

PART NUMBER:

MT-4140-R-[D,DDD]
WHERE "D,DDD" = DIAMETER IN INCHES
EX. 4" ROUND BAR = MT-4140-R-4.000

1	2	3	4	5	6	7	8
REV.		DESCRIPTION		ECN #		DATE	

A	NEW ISSUE	17-780	17-12-13	VM	ML
---	-----------	--------	----------	----	----

C

B

D

DART AEROSPACE		Handwriting Order, Cleaned	
TITLE			
AISI 4140 ROUND BAR			
Part No.	MT-4140-R	Rev	A
Code No.			
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES, AS PER DRAWINGS. TOLERANCES ARE IN HUNDREDTHS OF AN INCH. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN HUNDREDTHS OF AN INCH. TOLERANCES: XX .005			
DESIGNED BY:	VM 17/12/13	INITIALS AND NAME	
DRAWN BY:	VM 17/12/13/2017	UNIVERSITY	
CHECKED BY:	ML 12/19/2017	COLLEGE	
MANUFACTURED BY:	DP 12/20/2017	INSTITUTION	
APPROVED BY:	ML 12/20/2017	GRADE	
APPROVED BY:	ML 12/20/2017	SCALE	
SECTION 1 CONTROLLING DRAWING			
THE DOCUMENT CONTROLS THE DRAWING. NO PART OF THE DRAWING IS TO BE CHANGED, ADDED TO, OR REMOVED, WITHOUT WRITTEN PERMISSION OF THE ENGINEER OR SUPERVISOR. NO PART OF THE DRAWING IS TO BE COPIED, DUPLICATED, OR REPRODUCED, WITHOUT WRITTEN PERMISSION OF THE ENGINEER OR SUPERVISOR. NO PART OF THE DRAWING IS TO BE COPIED, DUPLICATED, OR REPRODUCED, WITHOUT WRITTEN PERMISSION OF THE ENGINEER OR SUPERVISOR.			
2	3	4	5
6	7	8	9

A

1

2

3

ML

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M7-4140QQT-R4.000
 DATE: 18/11/01

PO / BATCH NO.: P0041482/S123413

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 4ft
 QUANTITY INSPECTED: 4ft
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 4.000"
 THICKNESS RECEIVED: 4.000"
 SHEET SIZE ORDERED: —
 SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)		COMMENTS
	Y	N	
SURFACE DAMAGE	<u>Y</u>	<u>N</u>	
CORRECT FINISH	<u>Y</u>	<u>N</u>	
CORROSION	<u>Y</u>	<u>N</u>	
CORRECT GRAIN DIRECTION	<u>Y</u>	<u>N</u>	
CORRECT MATERIAL PER M-DRAWING	<u>Y</u>	<u>N</u>	<u>ASTM A36</u>
CORRECT THICKNESS	<u>Y</u>	<u>N</u>	
PHOTO REQUIRED	<u>Y</u>	<u>N</u>	
CORRECT REF # TO LINK CERT	<u>Y</u>	<u>N</u>	<u>MT. C144271</u>
CORRECT MATERIAL IDENTIFICATION	<u>Y</u>	<u>N</u>	
CORRECT M# ON THE MATERIAL	<u>Y</u>	<u>N</u>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<u>Y</u>	<u>N</u>	
DOES THIS REQUIRE AN EXTRUSION REPORT	<u>Y</u>	<u>N</u>	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>A</u>	SIGNED OFF BY: _____
DATE: <u>18/11/01</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

CERTIFICATE OF TEST
CERTIFICAT D'ESAI

9268

PO. 11395

RSS-340174

49170

Page 01 of 02

Certification Date
27-NOV-2017

CUSTOMER ORDER NUMBER
NUMÉRO DE COMMANDE DU CLIENT

AC00011395

PART NUMBER/NUMÉRO DE PIÈCE

510517

Invoice Number
T373050

SOLD TO: ACIER OUELLETTE INC. **SHIP TO:** ACIER OUELLETTE INC.
VENDU À: DIVISION SALABERRY DE VALLEYFIELD **VENDU À:** DIVISION SALABERRY DE VALLEYFIELD
 935, BOUL. DU HAVRE 935, BOUL. DU HAVRE
 SALABERRY-DE- VALLEYFIELD QC J6S 5L1 SALABERRY-DE- VALLEYFIELD QC J6S

Description: 17-4 SOL ANN CF BAR

ASTM A564

3/4 RD X 12' R/L

LINE TOTAL: 185 LB

HEAT: 9SG0264-G5011

ITEM: 510517

Specifications:

AMS 5643 U	ASTM A564 T630 13	ASME SA564 T630 13
ASTM A388/A388M 16	AMS 2303 F	NACE MR0175 09
ISO 15156-1 09*	*EXCEPT FOR H2S	CORROSION TEST)
EN 10204 3.1	ASTM F899 12B	API 6A APPENDIX M
ASTM E340	AMS 2315	ASTM E112

CHEMICAL ANALYSIS

C	SI	MN	P	S	NI	CR	MO
0.01	0.34	0.62	0.017	0.003	4.69	15.35	0.23
CU	NBTA	NB	TA				
3.30	0.27	0.26	0.005				

RCPT: R201370

COUNTRY OF ORIGIN : TAIWAN

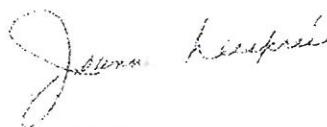
MECHANICAL PROPERTIES

DESCRIPTION	YLD STR	ULT TEN	%ELONG	%RED IN AREA	HARDNESS BHN
COND A					321
DESCRIPTION	YLD STR	ULT TEN	%ELONG	%RED IN AREA	HARDNESS BHN
DEV: H900 L	KSI	KSI	IN 02 IN	53.0	428
	182.0	201.0	17.0		

The above data were transcribed from the manufacturer's Certificate of Test after verification for completeness and specification requirements of the information on the certificate. All test results remain on file subject to examination. /Les informations ci-haut-mentionnées sont transcrrites du certificat d'essais du manufacturier après vérification de l'état complet des spécifications inscrites sur le certificat. We hereby certify that the material covered by this report will meet the applicable requirements described herein, including any specification forming a part of the description. /Par les présentes, nous certifions que le matériau couvert par ce rapport rencontre les spécifications décrites ci-haut.

Material did not come in contact with mercury while in our possession./Par les présentes, nous certifions que le matériel couvert par ce rapport n'a pas rencontré les spécifications décrites ci-haut.

JOANNE DESPRES



MANAGER QUALITY ASSURANCE
GÉRANT DE L'ASSURANCE QUALITÉ

heat: 9SG0264-G5011

CERTIFICATE OF TEST CERTIFICAT D'ESAI

Page 02 of 02

Certification Date
27-NOV-2017

CUSTOMER ORDER NUMBER
NUMÉRO DE COMMANDE DU CLIENT
AC00011395

Invoice Number
T373050

PART NUMBER/NUMÉRO DE PIÈCE
510517

SOLD TO:	ACIER OUELLETTE INC.	SHIP TO:	ACIER OUELLETTE INC.
VENDU À:	DIVISION SALABERRY DE VALLEYFIELD 935, BOUL. DU HAVRE SALABERRY-DE- VALLEYFIELD QC J6S 5L1	EXPÉDIÉ À:	DIVISION SALABERRY DE VALLEYFIELD 935, BOUL. DU HAVRE SALABERRY-DE- VALLEYFIELD QC J6S 5L1
Description:	17-4 SOL ANN CF BAR 3/4 RD X 12' R/L	ASTM A564	Line Total: 185 LB
HEAT:	9SG0264-G5011	ITEM: 510517	

GRAIN SIZE : 8 -

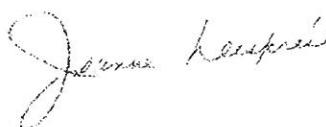
MATERIAL IS FREE FROM MERCURY CONTAMINATION
NO WELD REPAIR PERFORMED ON MATERIAL
ULTRASONIC: YES
THERMAL TREATMENT: OK
SOLUTION TREATMENT: 1900 +/- 25 DEG F FOR 30 MIN/INCH
(MINIMUM OF 1/2 HOUR), RAPIDLY COOLED TO BELOW 90
DEG F
MACRO: OK
MICRO1: OK
AMS NO :2303
SEVERITY : 0.0
FREQUENCY: 0.0

COMMENTS

red. ratio 279.6:1
17-4 is the same with aisi 630
free from residual radioactivity

The above data were transcribed from the manufacturer's Certificate of Test after verification for completeness and specification requirements of the information on the certificate. All test results remain on file subject to examination. /Les informations ci-haut-mentionnées sont transcris du certificat d'essais du manufacturier après vérification de l'état complet des spécifications inscrites sur le certificat. We hereby certify that the material covered by this report will meet the applicable requirements described herein, including any specification forming a part of the description. /Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.
The willful recording of false, fictitious, or fraudulent statements in connection with test results may be punishable as a felony under federal statutes. /Les informations fausses, fictives ou frauduleuses en rapport avec le résultat des essais sont punissables en vertu des lois fédérales.

Material did not come in contact with mercury while in our possession./Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.



MANAGER QUALITY ASSURANCE
GÉRANT DE L'ASSURANCE QUALITÉ

SPECIFICATION CONTROL DRAWING

△ PURCHASE MATERIAL 174 PH / S17400 / TYPE 630 SS ROUND BAR
SPAN MUST BE ALONG LENGTH OF BAR
MINIMUM YIELD STRENGTH PER TABLE
MINIMUM ULTIMATE STRENGTH PER TABLE

△ SPECIFICATION: AMS 5643 OR ASTM A564
△ PART NUMBER: M17-4-| HHHHH- | R XXXX | WHERE: HHHHH SPECIFIES THE MATERIAL CONDITION (PER TABLE BELOW)
△ COND. O.D. X.XXX = DIAMETER (IN INCHES)

△ MATERIAL CONDITION TABLE:

CODE	CONDITION	MIN YIELD TENSILE STRENGTH (KSI)	MIN ULTIMATE TENSILE STRENGTH (KSI)
(OMITTED)	NONE SPECIFIED (CONDITION A NOT ACCEPTABLE)	100	150
H900	H900	170	190
H925	H925	155	170
H1025	H1025	145	155
H1075	H1075	125	145
H1100	H1100	115	140
H1150	H1150	105	135
COND A	CONDITION A (SOLUTION TREATED)		

NOTES: MATERIAL IN H900 AND H925 CONDITION NOT RECOMMENDED FOR TENSION OR SHEAR APPLICATIONS IN COLD WEATHER CONDITIONS

MATERIAL IN H900 AND H925 CONDITION NOT RECOMMENDED FOR APPLICATIONS WHERE STRESS CORROSION CRACKING IS POSSIBLE
CONDITION A NOT TO BE USED IN DESIGN FOR FINAL PRODUCT AND SHOULD ALWAYS BE HEAT TREATED

△ EXAMPLES:

PART NUMBER: M17-4-R7000
4000⁰ DIAMETER BAR MIN YTS = 150 KSI, MIN YTS = 100 KSI
M17-4-H900-R2.500
2500⁰ DIAMETER BAR H900 CONDITION
M17-4-H1025-R3.250
3250⁰ DIAMETER BAR H1025 CONDITION
M17-4-H1150-R0.750
0.750⁰ DIAMETER BAR A CONDITION

C	ADDED MATERIAL CONDITION (CIR17-107)			No	17.09.14
B	HEFORMATT DWG 5174000 TYPE 330 ADDED TO PURCHASE MATERIAL (ZNB-1), ADD AS564 SPEC (CS-1).			VS	10.05.20
	REF PAR 08-020/A			CP	05.03.16
A	NEW ISSUE			BY	DATE
REV.					
	DESIGN	NO	DART AEROSPACE LTD		
	DRAWN	NO	HAWKESBURY, ONTARIO, CANADA		
	CHECKED	CP	REV. C		
	MFG. APPR.	RA	SHEET 1 OF 1		
	APPROVED	WM	SCALE		
	DE APPR.	CP	M17-4-R		
	DATE	17.09.14	MATERIALS		

RELEASED BY DART AEROSPACE LTD
2017-10-31 BY DART AEROSPACE LTD
E0117-728

NOTES: MATERIAL CONDITION NOT RECOMMENDED FOR TENSION OR SHEAR APPLICATIONS IN COLD WEATHER CONDITIONS
MATERIAL IN H900 AND H925 CONDITION NOT RECOMMENDED FOR APPLICATIONS WHERE STRESS CORROSION CRACKING IS POSSIBLE
CONDITION A NOT TO BE USED IN DESIGN FOR FINAL PRODUCT AND SHOULD ALWAYS BE HEAT TREATED

1 2 3 4 5 6 7 8 9

4

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1

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M17-4R0.750
 DATE: 18/11/01

PO / BATCH NO.: P0041482/S123416

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 24.674
 QUANTITY INSPECTED: 24.674
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.750"
 THICKNESS RECEIVED: 0.750"
 SHEET SIZE ORDERED: —
 SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	(N)	
CORRECT FINISH	(Y)	N	
CORROSION	Y	(N)	
CORRECT GRAIN DIRECTION	(Y)	N	
CORRECT MATERIAL PER M-DRAWING	(Y)	N	<u>ASTM A564</u>
CORRECT THICKNESS	(Y)	N	
PHOTO REQUIRED	Y	(N)	
CORRECT REF # TO LINK CERT	(Y)	N	<u>HT: 95G0264-G5011</u>
CORRECT MATERIAL IDENTIFICATION	Y	(N)	
CORRECT M# ON THE MATERIAL	Y	(N)	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	(N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	(N)	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>A1</u>	SIGNED OFF BY: _____
DATE: <u>18/11/01</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

08/07/2018

#E4-11G48

51311

Printable Test Report

TRA 2354

ArcelorMittal Dofasco G.P.
P.O. Box 2460

TEST REPORT
RAPPORT D'ESSAI

LBN 375 Purchase Order/Bon de Commande
G-50344-5 MAY
Bill of Lading/Connaissement
743475
Sold To/Vendu A
LES ACTEURS TRANSBEC (1997) LTÉE
4055A LE COURBUSTIER, SUITE 201
Laval, QC
H7L 5R2

Page 1 of 1
 Customer/Client: 612995
 Packing Slip/Bordereau de Charge: HS2
 Sales Order/Bon de Commande: 366644013
 Vendor/Vendeur: Vehicle or Carrier/Véhicule ou Transporteur
 _

Spec/Norm et Spec.
ASTM A1011/A1011M CS TYPE B (17a)
STANDARD THICKNESS TOLERANCE
STANDARD UNEXPOSED SURFACE
MATERIAL CERTIFICATION REQUIRED

Material Description/Specification Data
HOT ROLLED STEEL SHEET
COMMERCIAL STEEL
COILS
MILL EDGE
PLAIN
DRY
-1150 MIN. 1230 X 48 X COIL
WEIGHT: 43350 LBS
-Country of Origin/Pays d'Origine:
CANADA
-Test Methods/Methods d'Essai:
ASTM E1019, E415

HEAT										COULEE										SHEET									
	Mn	P	S	Si	Cu	Ni	Cr	Sn	Mo	Al	Als	Alt	Ch	V	Ti	Ca	N	B	O										
COULEE	C																												
152886	.04	.17	.006	.004	.04	.11	.03	.08	.013	.032	.033	.0008	.003	.020	.001	.0002													
SERIAL NUMBER	LIST #																												
NOMBRE DE SERIE	FARDEAU																												
P63238/00	4392640																												

150884
Post

We Certify That The Material Described Herein Conforms To The Specification Shown On This Document

ArcelorMittal Dofasco G.P. as per John Duric CMTL Supervisor

The Results Relate Only To The Items Tested

This Report Shall Not Be Reproduced Except In Full Without The Expressed Written Approval of The CMTL Supervisor.

This Contract Is Subject To The Terms And Conditions Of Sale Shown On The Order Acknowledgement.

Ce Contrat est sujet aux termes et conditions de vente indiqués sur l'accuse de réception de commande.



ISSUED
COPY

DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO.	REV A M1010-S SHEET 1 OF 1
DATE	01.06.13	TITLE	1010-1025 SHEET
A	01.06.13		SCALE NTS
A1	04.03.09	ADD ASTM A1008 AND COLD ROLLED	

PURCHASE MATERIAL:

AISI 1010-1025 OR ASTM A36/A366/A1008
OR CSA G40-21, 38W/44W/50W/60W/70W

MINIMUM YIELD TENSILE STRENGTH = 28 ksi

MINIMUM ULTIMATE TENSILE STRENGTH = 42 ksi

COLD ROLLED

PART NUMBER:

M1010-S|TT|GA WHERE TT = GAUGE THICKNESS
GA

EG. 16 GAUGE STEEL = M1010-S16GA

RELEASED
01.06.13

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MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M10105, 125
 DATE: 18/11/01

PO / BATCH NO.: P0041482/5123398

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 32sf
 QUANTITY INSPECTED: 32sf
 QUANTITY REJECTED: 32sf

THICKNESS ORDERED: 0.125"
 THICKNESS RECEIVED: 0.125"
 SHEET SIZE ORDERED: 4'x8'
 SHEET SIZE RECEIVED: 4'x8'

DESCRIPTION	NCR (Check Y/N)		COMMENTS
	Y	N	
SURFACE DAMAGE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
CORRECT FINISH	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
CORROSION	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
CORRECT THICKNESS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
PHOTO REQUIRED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>152886</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>AJ</u>	SIGNED OFF BY: _____
DATE: <u>18/11/01</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

TS354

RCR-6-V

47916

Macsteel Bright Bar
A division of
Macsteel Service Centers SA (Pty) Limited
Reg No. 2005/016292/07 Vat No. 4430554206
P.O. Box 120 Meyerton 1960
Seymour Road, Industrial Sites, Meyerton
South Africa



BRIGHT BAR

49094

12-Sep-17

CHEMICAL ANALYSIS CERTIFICATE

TO: LES ACIERS TRANSBEC (1997) LTEE

6 " 152.40MM C1018

PO # CA47916 LOT4 REF 170647C ASTM A108 - 13

CAST No.	C. %	Si. %	Mn. %	S. %	P. %	Pb. %
1702492	0.160	0.250	0.720	0.003	0.014	

S. Moloi

On behalf of Macsteel Bright Bar

01.02 PM

heat: 1702492

REV.	DESCRIPTION	ECN #	DATE	BY	APPROVED
A	NEW ISSUE		07/09/2017	SAC	WM
B	CORRECTED DRAWING NUMBER IN TITLE BLOCK	17-645	08/10/2017	SAC	WM

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL:

SPECIFICATION

卷之三

PARI NUMBER:

EXAMPLE F.

HOT BOILED STEEL BOUND BAB

ASTM A36 OR ASTM A1011 OR 44W OR ASTM A1018

MT-HRS-B-1D DNDI

WHERE PAPER IS PLACED

卷之三

TOLERANCES PER MANUFACTURED SPECIFICATIONS
W1-HRS-R-0.250



MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-HRS-R-6000
 DATE: 18/11/01

PO / BATCH NO.: P0041482/5123414

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 2ft
 QUANTITY INSPECTED: 2ft
 QUANTITY REJECTED: 2ft

THICKNESS ORDERED: 6.000"
 THICKNESS RECEIVED: 6.020"
 SHEET SIZE ORDERED: —
 SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	<u>N</u>	
CORRECT FINISH	<u>Y</u>	N	
CORROSION	Y	<u>N</u>	
CORRECT GRAIN DIRECTION	<u>Y</u>	N	
CORRECT MATERIAL PER M-DRAWING	Y	<u>N</u>	
CORRECT THICKNESS	<u>Y</u>	N	
PHOTO REQUIRED	Y	<u>N</u>	
CORRECT REF # TO LINK CERT	<u>Y</u>	N	<u>HT:170249±</u>
CORRECT MATERIAL IDENTIFICATION	Y	<u>N</u>	
CORRECT M# ON THE MATERIAL	Y	<u>N</u>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	<u>N</u>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	<u>N</u>	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>M</u>	SIGNED OFF BY: _____
DATE: <u>18/11/01</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in